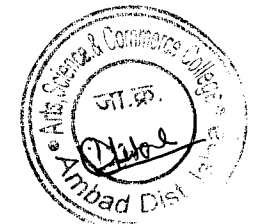


Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Department of Commerce

Teacher Name: Mr. Yogesh B Katare

Month	Class: B Com First Year	Class: B Com Second Year	Class: B Com Second Year	Class: B Com Third Year
	Paper: Business Mathematics & statistics-I	Paper: GST Account-I	Paper: IT Application in Business-I	Paper: Management Accounting-I
	Semester: I	Semester: III	Semester: III	Semester: V
Nov-2020	<p>- Admission process</p> <p>-</p> <p>Unit-I: Introduction of statistics: Meaning definitions, scope and importance of statistics Primary and secondary data, Methods of collecting primary data.</p>	<p>- Admission process</p> <p>Unit-I: Introduction, Overview and Evolution of GST Indirect tax structure in India: Difference between Direct & Indirect Taxes. Introduction to GST- Key concepts Important Definitions, Meaning of terms used in GST, GST Council Taxes under GST, Cess</p>	<p>- Admission process</p> <p>Unit-I: C-Language: Introduction, Types of Language – History of C language, Basic structure, Creating, Compiling, linking and executing the program, Pre-processors in “C”. Token, Constants, Keywords and Identifiers, Variables, data types, declaration and assignment of variables, Defining symbolic constants</p>	<p>- Admission process</p> <p>-</p> <p>Unit-1: Management Accounting (Theory) Meaning, Definition, Scope, Tools & Techniques of Mgt. Accounting Difference between Mgt. Accounting & Financial Accounting, Advantages and Limitation of Mgt. Accounting</p> <p>Unit-II: Financial Statement Analysis (Theory) Meaning, Definition, Scope of Financial Statement, Meaning of Financial Statement Analysis, (ICT Use in Minimum one lecture)</p>



Dec-2020	Unit-II: Measures of central Tendency; Mean Median, Quartile and Mode. (I.C.T. Use in minimum one lecture)	Unit- II : Registration under GST: Threshold for Registration Person not liable for registration Compulsory registration in certain cases(ICT Use in Minimum one lecture) Procedure for registration, Unique Identification Number, Registration Number Format	Unit-II: Operators, Expressions and Decision making in C Introduction to Operator, Type of Operator, Arithmetic, Relational and logical operation, assignment, increment and Decrement of Operators, Conditional, bitwise and special Operator, arithmetic expression and its evaluation, Hierarchy of arithmetic operations.	Tools of Financial Statement Analysis (Comparative Statement, Common Size Statement, Trend Analysis) Unit-III: Ratio Analysis (Numeric Only) Classification of Ratios, Calculation of Ratio- G/P Ratio, N/P Ratio, Return on Capital Employed Ratio, Inventory Turnover Ratio, Debtors Turnover Ratio, Creditors Turnover Ratio, Current Ratio, Liquid Ratio, Proprietary Ratio. Problems & Solutions(ICT Use in Minimum one lecture)
Jan-2021	Unit-III: Measures of Dispersion- Mean deviation Standard deviation. Skewness Skewness & co-efficient of Skewness	Unit- III : Supply under GST & Valuation of Supply: Supply, Place of supply, Intrastate & Interstate Supply, Levy and Collection of IGST, CGST, SGST/UTGST, Time and Valuation of Supply	Unit-III: Control, Banking and Decision Making in c: Introduction, if statement, if else statement, Nested if statement,if else if Laddar, Switch case, GOTO statement. Unit-IV: Loop Introduction in C, While loop, do while Loop, for loop with variation, Nested Loop, Loop interruption statement, Break and Continue.	Unit-IV: Funds Flow Statement (Numeric Only) Funds From Operation (only in Statement form), Statement showing changes in working capital, Funds Flow Statement, Preparation of Necessary Ledger Accounts to Find out Hidden Information. Problems & Solutions (ICT Use in Minimum one lecture)
Feb - 2021	Unit-IV: Determinants: Different methods of calculating determinants Unit V: Matrices Meaning, definition, types,	Unit-IV : Input Tax Credit & tax payments under GST: Input Tax Credit Process, Negative list for Input tax credit, Payment of tax, Interest and penalties.	Unit-V: Arrays and Strings: Arrays; Introduction, defining an array, Initializing an array, One dimensional array, Two dimensional array, Dynamic array. Strings: Introduction, Declaring and Initializing string variable, Reading	Unit-V: Cash flow Analysis. (Numeric only) Cash flow statement as per AS-3

	addition & subtraction.		and writing String, string handling function	
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Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Month	Class: B Com First Year	Class: B Com Second Year	Class: B Com Second Year	Class: B Com Third Year
	Paper: Business Mathematics & statistics-II	Paper: GST Account-II	Paper: IT Application in Business-II	Paper: Management Accounting-II
	Semester: II	Semester: IV	Semester: IV	Semester: VI
Apr-2021	Unit I: Correlation Meaning, Karl Pearson's co-efficient of correlation	Unit-I : Documents, Accounts & Records, Returns under GST: Tax Invoice, Credit & Debit Notes Accounts and other records to be maintained., Types of GST returns, Annual return and Audut under GST(ICT Use in Minimum one lecture)	Unit -1: Introduction to E-Commerce E-Commerce an overview, Electronic Commerce framework, Evolution of e-commerce, History of electronic commerce, Advantages and Disadvantages of e-commerce, Roadmap of e-commerce in India, E-business: Definition, E-business models, Elements of e-business models	Unit I: Budget & Budgetary Control (Theory) Meaning, Definition & Classification of Budget, Meaning & Objectives of Budgetary Control, Advantages & Limitation of Budgetary Control Unit II: Cash Budget (Numeric Only) Preparation of Cash Budget under Receipt & Payment Method, Problems & Solutions (ICT Use in Minimum one lecture)
May-2021	Unit-II: Index Number Laspeyer's method, Paasche's Method and Fisher Idel Index Number Methods (I.C.T. Use in minimum one lecture)	Unit-II : Composition Scheme, Eligibility criterion for opting the scheme. 2.2 Comparative analysis and Decision making under Regular and Composition scheme. 2.3 Withdrawal from Composition Scheme	Unit-II: E-Marketplaces Definition and structure of E-Marketplace, Types of E-Marketplace, Types of auction and its characteristics, benefit, limitations and impact of auctions, E-Commerce in the wireless environment	Unit III: Functional Budget (Numeric Only) Preparation of Production and Purchase Budget, Preparation of Sales Budget, Preparation of Master Budget Problems & Solutions (ICT Use in Minimum one lecture)
Jun-2021	Unit-III: Regression Analysis Meaning of regression, types of regression, Methods of estimating regression lines.	Reverse Charge Mechanism under GST Unit-III : 3.1 Provision of Reverse Charge Mechanism (RCM). 3.2 Services covered	UNIT-III: E-Business Applications and E-payment System integration and e-business suits, ERP overview of software	Unit IV: Capital Budgeting (Numeric Only) Meaning & Types of Capital Budgeting, Pay Back Period Method, Discounted Cash Flow Method- Net

		under RCM. II Unit - 15 II 3.3 Difference between RCM and Tax on URD. 3.4 Provisions of Self Invoicing and ITC under RCM.	solutions, ERP implementation, Methodology and framework, CRM, E-payment, categories and users of smart cards, different digital payment method.	Present Value Method, Problems & Solutions
Jul - 2021	Unit- V: Probability (Basis Concepts and Numerical Problems) (I.C.T. Use in minimum one lecture)	Unit- IV.- Others: Overview of Schedule Entries and Tariffs under GST E-Way Bill Procedure Accounting Entries of GST transaction (ICT Use in Minimum one lecture)	Unit-IV: E-Business impact on different fields and Industries E-Business impact: E-Tourism, online employment and Job market, online real Estate, online publishing and E-Books, online banking, Online delivery of Digital Products, Entertainment and Media E-Government: Definition of e- government, implementation, E- Government services, Challenges and opportunities, Benefits of E- Government	Unit V: Responsibility Accounting (Theory) Definition, Meaning, Basic Principles, Basic Process in Implementation , Responsibility Reporting, Centres of Control- Cost Centre, Revenue Centre- Responsibility Centre- Profit Centre- Investment Centre., Benefits of Responsibility Accounting(ICT Use in Minimum one lecture)

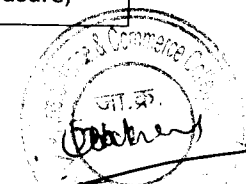


Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Department of Commerce

Name of teacher: Dr.J.M.Bhalerao

Month	Class: B Com First Year	Class: B Com First Year	Class: B Com Second year	Class: B Com Third year
	Paper: Entrepreneurship development-I	Paper: computer application in business	Paper: Cost Account I	Paper: Computerized Accounting-I
	Semester: I	Semester: I	Semester: III	Semester: V
Nov-2020	Unit-I: Concept of Entrepreneurship- Meaning, Nature & Importance, Role of Entrepreneurship in Economic Development, Theories & Models of Entrepreneurship Development, Origin & development of Entrepreneurship in India.	Unit – I Computer Codes and Languages; Computer Codes; Different number systems, Binary , Octal, Hexadecimal, Decimal, Conversion from one base to another base,- Coding, BCD, EBCDIC, ASCII, High level, low level, Assembly language	I : Cost Accountig Meaning and definition, limitation Unit of financial Accounting, development of cost accounting, functions , objectives, advancetages and limitations of cost accounting, difference between cost and financial accounting, elements of cost , classifications of costs.	Unit-I Introduction to computerized Accounting: need & significance, Evolution from manual to computerized accounting system, Benefits from computerized accounting (Tally ERP 9), Evolution of accounting software, Different versions of Tally, Silent features, Technological advantages of computerized accounting.
Dec-2020	Unit-II: Entrepreneur - Definition, Characteristics, Qualities, Types of Entrepreneur, factors promoting entrepreneur, Functions of Entrepreneur.Challenges& Issues in entrepreneurship, Barriers of entrepreneurship, Social responsibility	II) Word Processing Introduction, word processing concepts, Use of Templates, working with word document: Editing text, Find and replace text, formatting, spell check, Auto correct, Auto text, Bullets	Unit II- material Concept and objective of material control,need and essential of material control, purchase procedure, functions of purchase department, classifications and coding of materials, fixation of levels of material . economic order quantity.	Unit-II Fundamentals of computerized accounting (Tally ERP9): Start up & Quite, Screen Components, Setting up a new company, Select, Alter & delete a company, maintaining accounting master -Group , ledgers Maintaining inventory master-stock group, Stock items, unit of measure,



	ofentrepreneurs.	and numbering, table creation, Header and footer, inserting pictures and video. Mail merge, Printing documents creating business Document using above facilities.		Stock categories, Godown, F11 features , F12 configuration.
Jan-2021	<p>Unit-III:</p> <p>Entrepreneurship Development Programme: Meaning, Need, Objective, contents , phases, limitations, EDP conducting agencies in India with special reference to MCED entrepreneurs.</p>	<p>III) Preparing Presentation with Power Point; Creation of Slides, adding Object, Movies, Sound, Animation, Styles of Presentation and linking procedures, Slides Colour Scheme, background, Custom Animation, Slide Transition, Slide Show. (I.C.T. Use in minimum one lecture)</p>	<p>Unit III storage and handelling of material</p> <p>Organization and layout of stores, material handling costs , bincards, stores routine, issue of materials, issue of procedure, methods of pricing material issues , FIFO , LIFO, SIMPLE AVERAGE METHOD, WEIGHTED AVERAGE METHOD.</p>	<p>Unit-III vouchers, Accounting vouchers: Contra, Payment, Receipt, Journal, Purchase , Sale, debit note and credit note. Inventory Voucher: purchase order , Sale orders, receipt note & delivery note, Stock journals, Rejection in rejection out. Unit IV: Reports/ Accounting Reports Trial Balance, Profit and Loss Account, Balance sheet , Daybook, Cash/Bank book, Ledger report, group summary, Voucher Report. Inventory Reports: Stock Summary, Stock item summary, Stock group summary, Stock categories report, Godown reports, Inventory voucher reports, understanding report wise-12 configuration.</p>
Feb -2021	<p>Unit-IV: Quick Start Methods:Introduction, Franchises, Multi Turn-level marketing; Merits & Demerits</p>	<p>IV) Spreadsheet and its Business application</p> <p>V)</p>	<p>Unit IV labour</p> <p>Meaning and definition, methods of time keeping and time booking, labour control, methods of wage payments , time and pieace rate, incentives</p>	<p>Unit V: GST Functionality: Activating GST in Tally, Setting up GST-Company level, ledger level or Inventory level. Creating GST Masters: C-GST, S-GST, I-GST, Recording GST transaction: Purchase sales, printing</p>

		Creating Business Spreadsheet (I.C.T. Use in minimum one lecture)	schemes – Taylor's differential piece rate system, Halsey plan, Rowan plan. . Unit V : overheads Definition of overhead, direct and indirect cost, importance of overhead, allocation, apportionment and absorption of overhead, methods of distribution primary, secondary distributions repeated methods.	GST Tax invoice, GST returns, payment of GST.
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Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Month	Class: B Com First Year	Class: B Com First Year	Class: B Com Second year	Class: B Com Third year
	Paper: Entrepreneurship development-II	Paper: Business communication and IT application	Paper: Cost Account II	Paper: Computerized Accounting-II
	Semester:II	Semester:II	Semester: IV	Semester: VI
Apr-2021	Unit – I : Set-up a new Venture: Preparation of Project Report, Contents, Procedure of Registration with DIC or local bodies, procedure of formation of a private limited company	Unit –I Communication Meaning & definition of communication, Importance of Communication, types of communication, Barriers to communication (I.C.T. Use in minimum one lecture)	Unit I single or output costing. Elements of costs, preparation of cost sheet, tender and quotations .	Unit I Advance computerized Accounting Features:(Tally ERP 9) maintaining Bill wise details: Activating bill wise details, Credit period, maintain balances bill by bill, Outstanding Reports. Cost Centers & Cost categories:

				<p>Activating Cost centers, Creating cost centers, Cost centers reports.</p> <p>Banking: cheque book management, Denomination details , Bank reconciliation.</p>
May-2021	<p>Unit – II : Innovation in Entrepreneurship: IT Entrepreneurship, E-Commerce businesses, Rural Entrepreneurs, Service Sector opportunities for entrepreneurs</p>	<p>Unit II Business Correspondence Business Letters, Notice ,Agenda, Job application letter, preparing the resume</p>	<p>Unit II Contract costing: Complete and incomplete contracts , work in progress profit on contract.</p>	<p>Unit II Advanced Inventory features in computerized accounting Stock Transfers: Recording Stock Journal, Godown wise reports, Bill of material: set up for stock items, manufacturing journal. Batch wise details : Activating Batch wise details , Batch wise reports.</p>
Jun-2021	<p>Unit – III : Role of Financial institutions in promoting entrepreneurship MSFC, DIC, SIDBI, Nationalised Banks, Co-operative Banks,</p>	<p>III) Computer networks: Introduction, Need, advantages, disadvantages. types of networks, types of transmission media, internetworking devices, IP address, protocols.</p> <p>(I.C.T. Use in minimum one lecture)</p>	<p>Unit-III operating cost sheet: Electricity & trasport.</p>	<p>Unit-III Advanced GST transaction (Tally ERP 9) Recording Purchases: Nil Rated, Exempted, Multiple tax rates, Purchase returns. Recording sales: NIL Rated, Exempted, Multiple GST rates, Sales returns. Recording Sales of Service, E-way Bill, GST returns: GSTR1, GSTR2</p>

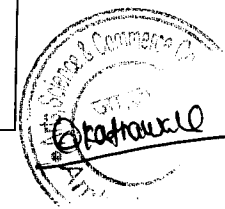
<p>Jul -2021</p>	<p>Exam Preparation of the Students</p>	<p>IV) Electronic communication Meaning, definition, advantage & disadvantages, types of electronic communication.</p> <p>V)Email, social networking sites and oral presentation Email, Fax, Video conferencing, Aral presentation,</p>	<p>Unit IV : process costing.</p> <p>Unit V : reconciliation : Reconciliation of cost and financial accounting</p>	<p>Unit IV : Tax Deducted At Source: (TDS) Concept of TDS, Activating TDS, Creating Masters, Recording Transaction, TDS Reports.</p> <p>Unit V: Technological Features in Accounting Software:(Tally ERP 9) Backup & Restore, import and Export data, Setting password to company.</p>
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Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Department of Commerce

Name of teacher: **Dr. C.P.Kothawale**

Month	Class: B. Com. First Year	Class: B. Com. Second Year	Class: B. Com. Third Year	Class: B. Com. Third Year
	Paper: Bus. & Ind. Economics -I	Paper: Banking	Paper: Business Regulatory Frame work - I	Paper: Advance Financial Accounting I
	Semester: I	Semester: III	Semester: V	Semester: V
Nov-2020	<p>1. Introduction to Business Economics: Meaning, definition, nature, characteristics, significance and scope of business economics, objective of a business firm.</p> <p>II Theory of Consumer Behaviour The indifference curve approach: Meaning, definition, assumptions and properties of Indifference curve, consumer's equilibrium.</p>	<p>Unit I Banking in India i. Meaning and definition of banks, Banking and Banking Company. ii. Commercial Banks Introduction, structure of commercial banks in India, Functions, Credit creation by Commercial Banks, Principle of liquidity and profitability. iii. Co-Operative Banks: Introduction, structure, Organization and Management, Progress and Problems vi. Regional Rural Banks Introduction, Objective, and Management, Progress and Problems.</p>	<p>I. Indian Contract Act - 1872. 1. Meaning and nature of contract, essentials of valid contract. 2. Meaning and kinds of agreements, Agreements declared void, voidable contracts. 3. Offer and Acceptance of an offer. 4. Capacity of parties to contract.</p>	<p>Unit I: Social Accounting Introduction, objective and performance and its indicators, application of Keynesian formula of saving and investment, Social Cost benefit, and its measurement, Social income statement and social balance sheet. Analysis of Social cost And Social benefit in India</p>
Dec-2020	<p>III Elasticity of Demand Concept, Measurement and determinants of elasticity of demand. Price elasticity, income elasticity and cross elasticity, importance of elasticity of demand, Demand Forecasting Methods</p>	<p>Unit II- Central Bank: The Reserve Bank of India: Introduction, Organisation and management General functions, Regulation of money and Credit supply, Credit Control Measures. Unit III Banker and Customer The the relationship between a banker and a customer, General Relationship-Special</p>	<p>II. Indian Contract Act - 1872. — Part-II 1. Free consent. 2. Lawful object. 3. Consideration. III. Indian Contract Act-1872. —Part-III 1. Performance of contract. 2. Discharge or Termination of contract. 3. Breach of contract</p>	<p>Unit II- Departmental Account .Introduction, Objective and advantages of Departmental Accounting, Methods of Departmental Accounts, Allocation of Departmental Expenses, Provision for unrealized profit, problems related to Allocation of expenses, Computation of</p>



Dec-2020	<p>III Elasticity of Demand Concept, Measurement and determinants of elasticity of demand. Price elasticity, income elasticity and cross elasticity, importance of elasticity of demand, Demand Forecasting Methods</p>	<p>Unit II- Central Bank: The Reserve Bank of India: Introduction, Organisation and management General functions, Regulation of money and Credit supply, Credit Control Measures.</p> <p>Unit III Banker and Customer The the relationship between a banker and a customer, General Relationship-Special relationship, statutory obligation to Honourcheques-Bankers lien. Duty to maintain secrecy of customers account, right to claim incidental charges, right to charge compound interest Banking Ombudsman .(I.C.T. Use in minimum one lecture)</p>	<p>II. Indian Contract Act - 1872. — Part-II 1. Free consent. 2. Lawful object. 3. Consideration.</p> <p>III. Indian Contract Act-1872. —Part-III 1. Performance of contract. 2. Discharge or Termination of contract. 3. Breach of contract</p>	<p>Unit II- Departmental Account .Introduction, Objective and advantages of Departmental Accounting, Methods of Departmental Accounts, Allocation of Departmental Expenses, Provision for unrealized profit, problems related to Allocation of expenses, Computation of Departmental cost, Inter Departmental Transfer</p>
Jan-2021	<p>IV- Market Structures Market Structures and Business decisions; Objectives of a business firm;</p> <p>a. Perfect Competition: Meaning, Concept and features; b. Monopoly: Meaning, Concept and features;</p>	<p>UnitIV Accounts of Customers i.General Precautions for opening Accounts, KYC (Know Your Customer), Types of deposit accounts, Fixed deposit receipt, nomination TDS. ii. Special types of customers, Minor, married women, Drunkards, Lunatic; partnership, Joint stock companies unincorporatedbodies.Executor and administrators. Trusts</p>	<p>IV. Special Contracts. 1. Indemnity and Guarantee contracts. 2. Bailment and Pledge contracts. 3. Agency contracts</p>	<p>Unit III Investment Account Introduction, Objective of Investment Accounts, Fixed income Bearing Securities, Variable income bearing securities, purchase and sales of investment on date of payment interest, purchase and sales of investment before the date of payment of interest cum interest, Fixed interest Dividend purchase cum interest ex. Interest Dividends</p>

		<p>accounts, Joint accounts.</p> <p>iii.Principle of soundlending, secured and unsecured advances, forms of advances.</p> <p>iv. Modes of charging security: lien,Pledge, mortgage, Assignment, Hypothecation.</p>		<p>sale some adjustment on equity share investment account</p>
<p>Feb -2021</p>	<p>V Factor Pricing Marginal Productivity theory and demand for factors; Nature of supply of factor inputs;</p> <p>Determination of wage rates under perfect competition and monopoly; Rent concept; Ricardian and Modern theories of Rent; Quasi rent</p>	<p>Unit V Electronic banking (E-Banking) Introduction, Traditional banking v/s E-Banking, electronic delivery channels (ATMs, Smart cards telebanking, internet banking)E-Banking transaction,Truncatedcheques and electronic cheques, MCqh product, Advantages of E-Banking, Constraints in E-Banking, security measures, RTGS & NEFT.</p>	<p>V. Consumer Protection Act (Amended Act of 2002) » 1. Objectives and Important Definitions of Act. 2. Composition and working of Consumer protection councils. 3. Composition and working of Consumer Disputes Redressal Agencies.</p>	

Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
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Month	Class: B. Com. First Year	Class: B. Com. Second Year	Class: B. Com. Third Year	Class: B. Com. Third Year
	Paper: Bus. & Ind. Economics -II	Paper: Insurance	Paper: Business Regulatory Frame work – II	Paper: Advance Financial Accounting II
	Semester: II	Semester: IV	Semester: VI	Semester: VI
Apr-2021	<p>Unit 1: Foundation of Indian Business Lectures: Manufacturing and Service Sectors: Small and Medium Enterprises; Problems and Government policy. India's experience of liberalization and globalization. Technological innovations and skill development. 'Make in India' Movement. Social responsibility and ethics Emerging opportunities in business; Franchising, Outsourcing, and E-commerce..</p> <p>Unit 2: Business Enterprises Forms of Business Organization: Sole Proprietorship, Joint Hindu Family Firm, Partnership firm, Joint Stock Company, Cooperative society; Limited Liability Partnership: Choice of Form of Organization. Government Business Interface; Rationale and Forms</p>	<p>Unit – I Introduction of Insurance Meaning, Basic principle and Significance of Insurance, Insurance Contracts, Elementary knowledge of Life Insurance corporation Act 1956, IRDA 2000, privatization insurance business in india, Impact of liberalization on insurance business.</p>	<p>1.Sales of Goods Act - 1930. — Part-I 1. Meaning and Definition of Sales of goods contract. 2. Subject matter of contract - Goods and Price. 3. Conditions and Warrantees. 4. Transfer of property/ownership.</p>	<p>Unit – I Indian Accounting Standard Unit Indian Accounting Standards 07 -Meaning of Accounting Standard , Indian Accounting Standard 2020 , - Application of the following Accounting Standards AS 7,9,14,18,19,20,24,26 and 29</p> <p>Unit II Unit- Farm Accounting (Numeric) 08 Hooks of Accounts to be maintained for Farm Accounting Preparation of Farm A / C and Balance Sheet (Dairy and Poultry only) Unit- Final Accounts of Local Self Government</p>

	of Public Enterprises. International Business. Multinational Corporations.			
May-2021	Unit 3: Management and Organization The Process of Management: Planning: Decision-making: Strategy Formulation. Organizing: Basic Considerations; Departmentation - Functional, Project, Matrix and Network; Delegation and Decentralization of Authority; Groups and Teams	Unit -2 Insurance Agent Defination of an agent, Quallification and disqualificationDuties and function of an insurance agent Agent compensation, Insurance intermediaries. Unit- 3 Llife Insurance Meaning Features and Importance Type and principal of life insurance Selection of lives and risk	2.Sales of Goods Act--1930. --- Part-II 1. Delivery of goods. 2. Unpaid seller 3. Breach of contract. 4. Sale by Auction and Hire Purchase Agreement.	Unit III - Meaning and importance of Local Self Government - Maintaining Books of Accounts - Preparation of Final Accounts (Gran Panchayat and Zilla Parishad only)
Jun-2021	UNIT 4: Leadership, Motivation and Control Leadership: Concept and Styles; Trait and Situational Theory of Leadership. Motivation: Concept and Importance; Maslow Need Hierarchy Theory: Herzberg Two Factors Theory. Control: Concept and Process.	Unit-4 Procedure of Talking Life Insurance Policy Proposal Form, Medical Examination, Age Proof, Agent's Report, Moral Hazard Report, Underwriting, Insurance Premium, Mode of Payement,Procedure regarding settlement of policy claim, Life insurance policy conditions And Various clauses and privileges.	3.Negotiable Instruments Act - 1881. --- Part-I 1. Meaning, Definition and Characteristics of Negotiable Instruments. 2. Promissory Note, Bill of Exchange and Cheque. 3. Crossing of cheque. 4. Parties to negotiable instruments and their liability.	Unit IV -Account of Electricity Company Introduction , Features of Double Entry Account system - Preparation of Accounts , Revenue , Net Revenue Account -Receipt & Expenditure on Capital Account General Balance Sheet With special effect of adjustments Unit-International Financial Reporting Standards Theory

<p>Jul -2021</p>	<p>UNIT V: Functional Areas of Management Marketing Management: Marketing Concept; Mix; Product Life Cycle; Pricing Policies and Practices Financial Management: Concept and Objectives; Sources of Funds - Equity Securities Market, Role of SEBI. Human Resource Management: Concept and Functions; Basic Dynamics of Employer Employee Relations</p>		<p>4. Negotiable Instruments Act- 1881. —Part -II 1. Negotiation of negotiable instruments. 2. Presentment of negotiable instruments. 3. Dishonor of negotiable instruments. 4. Discharge of negotiable instruments. .(I.C.T. Use in minimum one lecture)</p>	<p>Unit V V International Financial Accounting System Accounting Values and Culture Development and Disclosure Global Accounting and Auditing Standards Note Sessional</p>
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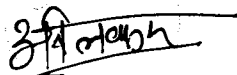
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Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

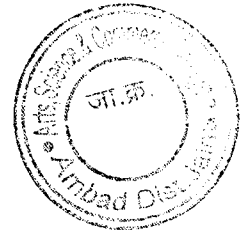
Department of Economics

Dr. A.D Nimbalkar

Month	Class: Class:-B.A FY	Class: BASY	Class: BATY	Class: BATY
	Paper: Indian Economy (II)	Paper: Macro Economics III	Paper: Agriculture Economics XII	Paper: Project Work XII
	Semester: I	Semester: III	Semester: V	Semester: V
Nov-2020	Unit I – Structure of the Indian Economy – Introduction Characteristics of the Indian Economy as a less developed economy	Unit I - Introduction: Macro Economics -Definition, nature and scope. Importance and limitations of Macro Economics. Difference between Macro and Micro Economics	Role & Importance Agriculture Development. Linkage between Agriculture & non Agriculture	Project Work
Dec-2020	Features: Natural Resources – Land, Water & Forest, Minerals, Need For Sustainable development, Population- Broad features, size & growth rates sex composition, Birth rate – death rat, Density, Literacy, Age composition, Occupational Distribution, Rural Urban population- Life expectancy, Rural Urban Migration, Problem of over population, Population Policy.	Unit: II - National Income: National Income - Definition and various concepts. Significance and circular flow of national income. Measurement and difficulties in measuring national income. Unit: V - Theory of Trade Cycles: Nature and characteristics or trade cycles. Hawtrey' monetary theory, Hayek' over investment theory,	Sector. Agriculture resources in India. Land utilization. Cropping Pattern. Agriculture growth. &Productivity. contract farming	Project Work
Jan-2021	Unit II – Human Resource Development – Human Development Index (HDI)- concept & meaning, Indicators, Importance, Gender Related Development Index (GDI), Human Poverty Index (HPI), HDI inter country & inter State comparison Unit III – Poverty & Unemployment – Concept of Poverty – measurement of poverty- causes of poverty, Measures to removal of poverty	Keynesian view on trade cycles. Control of trade cycles -monetary and Fiscal measures Unit: III - Theory of Money: Value of money and its measurement. Index Number. Quantitative Theory of Money, Fisher's approach.	Technology in Agriculture. HYV seeds. Water Technology. Green Revolution. Sustainable Agriculture. Dry Land Farming. Size of Holding in India & Maharashtra	Project Work



Feb - 2021	types of Unemployment Unit IV – Planning In India –Background of Indian Planning- National Planning Committee, Bombay Plan, Peoples Plan, Gandhian Plan, The Planning Commission,	Classical theories of employment. Keynesian theory of employment aggregate demand function, law of consumption average and Marginal propensity to consume. aggregate supply function, Principle of effective demand: Consumption function - concept, Keynesian Psychological 3 rd semester exam	demand & Supply Agri Product. Price Instability. Objective of Agriculture Price Policy. Food Security in India .PDS. Agriculture Subsidy. Agriculture Development, employment & unemployment in rural economy. Globalization of Indian economy & effect on Indian Agriculture
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Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
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Month	Class: BAFY	Class: BASY	Class: BATY	Class: BATY
	Paper: Money Banking & Finance - IV	Paper: Public Finance	Paper: Research Methodology XIII	Paper: Project Work
	Semester: II	Semester: IV	Semester: VI	Semester: VI
Apr-2021	Unit – I: Meaning & Function of Money: Meaning, Definition and Functions. Types of Money. Paper currency and kinds of Paper currency. Methods of Note Issue – Principles of note issue and Paper Currency Standards. Gresham's Law.	Unit - I: Introduction: Meaning, nature and scope or public finance. Importance of public finance. Difference between private. Public finance. Private public and merit goods. Unit - II: Public Revenue: Course of public revenue. Taxation Direct and	Meaning, nature Scope & Objective of Social research. Concept hypothesis, stages scientific research. Motivating factor of social research	
May-2021	Unit – II: Banking in India: Meaning and Definitions of Bank. Banking Structure in India. Commercial Banking – Functions, Credit Creation – process, purpose and limitations, Principles of Commercial Banks Liquidity, Profitability and Safety NABARD. New Concepts in Banking Core banking, ATM, Credit Card, E-banking and Internet banking.	Indirect tax, objectives of taxation, canons of taxation, classification of taxes. Division of tax burden. The benefit theory and ability LO pay theory, impact and incidence and effects of taxation Unit - III: Public Expenditure: Meaning and classification of public expenditure.	Primary data collection. secondary data collection method	Project Work
Jun-2021	Unit – III: Reserve Bank of India: Meaning and Functions of Reserve Bank of India. Money measures – M1, M2, M3, & M4. Organization and Management of R.B.I. Monetary Policy – Meaning, Objectives Methods of Credit Control – Qualitative and Quantitative.	Principles of public expenditure role of public expenditure in developing economy, effects or public; expenditure Unit - IV: Public Debt: Concept and importance of public debt, Comparison between public debt and private debt Sources,	Meaning & needs of Research Design. Types of Research Design.- Descriptive, exploratory, diagnostic & experimental	Project Work
Jul - 2021	Unit – IV: Money Market Capital Market in India: Meaning, Structure and Functions. Components of Money Market, Role of the Money Market,-Money Market Reforms in India. Capital Market – Meaning, Nature and functions of Indian Capital Market Stock Market – Meaning and functions of stock Market. Functions of Securities Exchanges Board of India (SEBI).2 nd semester exam	Causes and effects of public debt Debi burden and its management, redemption of bank debt. Unit - V: union Budget Meaning, objectives and components of union budget. Types of budget - balanced surplus, deficit and zero base budget, Concept, or Gender Budget. Current Central Government budget of India	One – dimensional diagrams, Two dimensional diagrams .Graphs of time series, Graphs of frequency distribution 6 th semester exam	Project Work



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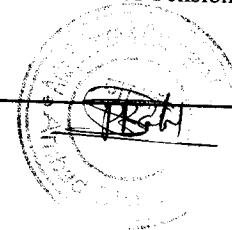
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of PSYCHOLOGY

Month	Class: B.A F.Y	Class: B.A F.Y	Class: B.A F.Y
	Paper: Basic Concepts in Psychology	Paper: Basic Concepts in Social Psychology	Paper: Practical
	Semester: II	Semester: II	Semester: II
Apr-21	Personality: Definition of Personality Theories of Personality iii. Assessment of Personality (I), iv. Assessment of Personality (IJ) A. Behavioural assessment a. Observation b. Rating B. Projective techniques	Prejudice : Disliking others What Is The Nature And Power Of Prejudice Ii) What Are The Motivational Sources Of Prejudice? Iv) What Are The Cognitive Sources Of Prejudice? V) What Are The Consequences Of Prejudice?	1. Learning & Memory g. Maze Learning b. Recall & recognition
May-21	Learning: - i. Definition of learning ii. Classical conditioning iii. Operant conditioning iv. Cognitive learning theories	Aggression : Hurting Others I) What Is Aggression? Ii) What Are Some Theories Of Aggression? Iii) What Are Some Influences On Aggression? Iv) How Can Aggression Be Reduced?	2. Intelligence a. Pass along test b. Koh's Block test
Jun-21	3. Memory: i. Definition and process ii. Types of memory iii. Types of long term memory iv. Forgetting: v. Application	Helping I) Why Do We Help? Ii) When Will We Help? Iii) Who Will Help? Iv) How Can We Increase Helping	3. Personality d. Study Habit Test e. 16 PF
Jul-21	4. Intelligence: - i. Definition of intelligence ii. Measurement of intelligence iii. Individual difference in intelligence iv. Theories of intelligence -	4) Social Psychology In Court I) How Reliable Is Eyewitness Testimony? Ii) What Other Factors Influence Juror Judgments?	4. Social Process b. Social competence scale (SCS) g. Comprehensive Scale of Tension

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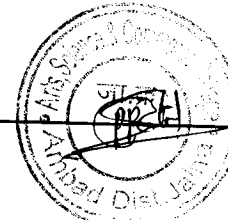
Matsyodari Shikshan Sanstha's

Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of PSYCHOLOGY

Month	Class: B.A S.Y	Class: B.A S.Y	Class: B.A S.Y
	Paper: Psychology for Living	Paper: Psychological Statistics:	Paper: Practical
	Semester: IV	Semester: IV	Semester: IV
Apr-21	The Self: - I. Self - Conceptii. Self - Esteem Iii. Basic Principles Of Self-Perceptioniv. Self-Regulationv. Self- Presentationvi. Application: Building Self-Esteem	Frequency Distributions: i. Measurement in general ii. Need for grouping iii. Preparation of a frequency table iv. Graphic representations of the frequency distribution a. Histogram b. Frequency Polygon v. Smoothing a polygon	ii) Family relationship scale iv) Marital adjustment questionnaire
May-21	Stress And It's Effects: I. The Nature Of Stressii. Major Types Of Stressiii. Responding To Stressiv. The Potential Effects Of Stressv. Factors Influencing Stress Tolerance	Measures Of Central Tendency: i. Mean ii. Computation of the mean a. The long method and b. The short or assumed mean method iii. Median and its computation iv. Mode	ii) Personality Inventory iii) KNPI ii) Revised Adjustment Inventory
Jun-21	Coping Processes: I. Common Coping Patterns Of Limited Valueii. The Nature Of Constructive Coping iii. Average deviation Iii. Appraisal-Focused Constructive Copingiv.	Measures Of Variability: i. Range ii. Quartile deviation I iii. Average deviation iv. Standard deviation v. Uses of the various measures of variability	vii) Youth problem Inventor- Ego Strength sca
Jul-21	Psychology And Physical Health: - I. Stress, Personality And Illnessii. Habits, Lifestyles, And Healthiii. Reactions To Illness	Measures Of Association: Meaning and types of coefficient of correlation ii) Rank Difference Correlation iii) Product Moment Correlation	viii) Self concept



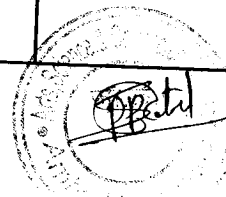
Matsyodari Shikshan Sanstha's

Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of PSYCHOLOGY

Month	Class: B.A T.Y	Class: B.A T.Y	Class: B.A T.Y	Class: B.A T.Y	Class: B.A T.Y
	Paper: Psychopathology	Paper: Organizational behavior	Paper: Counseling In Action	Paper: Project work	Paper: Practical
	Semester: VI	Semester: VI	Semester: VI	Semester: VI	Semester: VI
Apr-21	Mood Disorders: -Unipolar Mood Disorders: Normal Depression, Mild to Moderate Depressive Disorder, Major Depressive Disorder o Bipolar Disorder Cyclothymiaacs.	The individual in the organization: Moti vation concept Early theories or moti vation Need hierarchy theory Theory x and y Two factor theory MBO Employ involvement	Theories of counseling Psychoanalysis: Humanistic Behavioral counseling Cognitive therapy Bowen systems therapy Crisescounseling	Project work	Small Research Project (Main Students)
May-21	Personality Disorders: Personality Disorders Clinical Features of Personality Disorders o Types of personality Disorders Paranoid, schizoid, Schizotypal Histrionic, Narcissi stic.	The group and organization: Nature, types, and stages group development D Conditions affecting group functioning of organizational structure o Group Structure :- A)Roles B) Norms C)	2) The Importance of Career of counseling Career information Career development theories and counseling	Project work	1) Adjustmeh Inventory 2) Value Test
Jun-21	The Schizophrenias and Delusional Disorders: The cl inical picture in schizophrenia Problemsin Defining Sch subtypes of Schizophreni. a Causal Factors and Treatment -	Communication in organizations: Communication model, llBarriers and sources Directions & network Communications and decision	Marriage, Couple and Fam ily Counseling: The changing forms of family l ife Family life and family life	Project work	16 PF . Personalit y l nv.:nctry 5) Achicvenc Sentence CompicTest
Jul-21	Mental Retardation: Level of mental Retardation L, o Brain Defects in Mental Retardation o Organ ic Retardation syndromes -, Cultural - Familial Mental Retardation o Treatment,	Leadership in organizations: Nature and types, Behavioral theories, Contingency theories and contemporary issues in leadership leadership and Power Bases of power.	College Counseling and student life Counseling : College counseling Counseling with nontraditional students	Project work	Serial Lea:ninr Level of mental



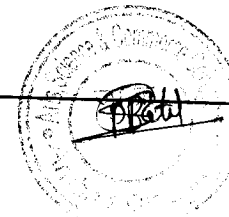
Matsyodari Shikshan Sanstha's

Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of PSYCHOLOGY

Month	Class: B.A F.Y	Class: B.A F.Y	Class: B.A F.Y
	Paper: General Psychology	Paper: Social Psychology	Paper: Practical
	Semester: I	Semester: I	Semester: I
Nov-20	The Science of Psychology: What is Psychology?- Historical Perspectives in Psychology, Modern Perspectives in Psychology, Scientific Methods, Application: How to enhance your academic performance	Introducing Social Psychology: What Is Social Psychology?, Social Psychology And Related Disciplines, Social Psychology And Human Values, Research Methods : How We Do Social Psychology	Motivation & Emotion Facial expression Knowledge of results Colour Preference
Dec-20	Biological Foundation of Behavior: Neuron: Structure and function, synapse, neurotransmitters, Central Nervous System, Glandular system	Behaviour And Attitudes : Do Our Attitudes Determine Our Behaviour?, When Does Behaviour Determine Attitudes?, Why Does Our Behavior Affect Our Attitudes?	Sensation & Perception Illusion Figure and ground Depth perception
Jan-21	Sensation and Perception: Sensational. Definition of perception, Perceptual constancies: Size, shape and brightness Gestalt principles of perception, Perceptual illusion Application	Conformity: What Is Conformity?, What Are The Classic Conformity Studies?, What Predicts Conformity?, Why Conforms?, vi) Why Conforms?, vi) How Can We Resist Social Pressure To Conform?	Social Process Social Loafing Scale: k. Religiosity Scale
Feb-21	Motivation and Emotion: Definition of motivation ii. Types of motives. Frustration and Conflict. Emotion, Definition B. Elements of emotion	Group Influence: What Is Group? ii) Social Facilitation: i ii) Social Loafing iv) Deindividuation Group Polarization: Do Groups Intensify Our Opinions? vi) Groupthink:	I. Social distance scale



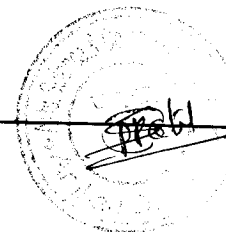
Matsyodari Shikshan Sanstha's

Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of PSYCHOLOGY

Month	Class: B.A S.Y	Class: B.A S.Y	Class: B.A S.Y
	Paper: Psychology of Adjustment	Paper: Psychological Testing	Paper: Practical
	Semester: III	Semester: III	Semester: III
Nov-20	Interpersonal Communication: I) The Process Of Interpersonal Communication i) Nonverbal Communication Iii) COMMUNICATION PROBLEMS iv) INTERPERSONAL CONFLICT v) APPLICATION	Uses And Implications Of Psychological Testing: I) Functions Of Psychological Tests I i) Nature Of A Psychological Test Iii) Controlling The Use Of V) Examiner And Situational Variables Vi) Effect Of Training On Test Performance Vii) Social And Ethical Implication	i) General Mental Alertness. ii) Teaching Aptitude Test
Dec-20	Friendship And Love: Perspectives On Close Relationship psii. Initial Attraction And Relationship Development. Friendship. Romantic Love	Item Analysis: Item Difficulty II) Item Discrimination Indices Of Item Discrimination IV) Item Response Theory V) Item Analysis Of Speeded Tests VI) Cross Validation	iv) Test of study habits and Attitudes. vi) Leadership Preference Scale
Jan-21	3) Marriage And Intimate Relationship: - . Challenges To The Traditional Model Of Marriage li. Moving Toward Marriage liii. Marital Adjustment Across The Family Life Cycle iv. Vulnerable Areas In Marriage	Reliability Of Psychological Test: I) Definition TI) The Correlation Coefficient III) Types Of Reliability: (A) Test-Retest Reliability B) Parallel From Reliability, (C) Split-Half Reliability D) Inter-Item Consistency	Optimistic Pessimistic Scale
Feb-21	Careers And Work: I. Choosing A Career ii. Models Of Career Choice And Development iii. The Changing World Of Work iv. Coping With Occupational Hazards v. Balancing	Validity Of Psychological Tests: I) Meaning Of Validity TI) Types Of Validity (A) Content Validation (B) Criterion-Related Validation (C) Construct Validation Iii) Comparison Of Validation Procedures) A new test of values



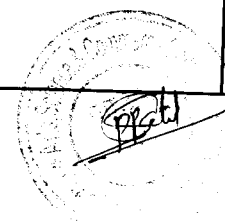
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Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of PSYCHOLOGY

Month-	Class: B.A T.Y	Class: B.A T.Y	Class: B.A T.Y	Class: B.A T.Y	Class: B.A T.Y
	Paper: Anormal Psychology	Paper: Organizational Psychology	Paper: Introduction Counseling	Paper: Project work	Paper: Practical
	Semester: V	Semester: V	Semester: V	Semester: V	Semester: V
Nov-20	Abnormal Behaviour in our times : What is abnormal Psychology? LI Mental Disorders as Maladaptive behaviours. Mental Disorders as Maladaptive behaviours [DSM IV & ICD]- 10 classification of	Historical context of organizational Behaviour :- J Definition of O.B. 1. Goals and elementsof O.B. 2. Fundamental Concepts 3. Nature of Organization 4. Models of O.B. -	Definition of Counselling Psychology: ii. goals of counseling iii. Scope of counsel ing	Project work	Local ization of Sound Depth Percepti.on
Dec-20	Causal Factors and Viewpoints in- Abnormal Psychology: Cred it 1 What causes Abnormal Behaviour? Necessary, sufficient and contributory causes - Models or view points for understanding	Perspectives for understanding O.B.:- D Open system approach D Human Relations perspective D Socio-technical approach	2) Building counseling relationship : a) Factors influencing the counseling process : b) Types of initialinterview:	Project work	3) Retroactive inhibition 4) Paired Associate Learning
Jan-21	Panic, Anxiety and their Disorders: The Fear and Anxiety Response patterns Anxiety Disorders Phobic Disorders Generalized Anxiety Disorder.	Person in the organization: - D Biographical characteristics Personality Definitions and Measurement C Major Personality attributes affecting O.B.	Working in a counseling relationship: Counsellor skills in the understanding and action phases.	Project work	7) Effect of noise on performance 8) Bilateral Transfer of Training
Feb+21	Somatoform and Dissociative Discords: Somatoform Disorder IJ Somatization Disorder Hypochondriasis. D Pain disorder. IJ Conversion disorder. Dissociative Disorders :	Values, Attitudes and job satisfaction: - I Values: i. Importance of values ii. Types of valuesii i. Values loyalty and ethical behaviour Attitudes:	Termination of counsel ing relationship: function of termination timing of termination Issues of	Project work	12) Zeigarn ic effect 13) Reaction time



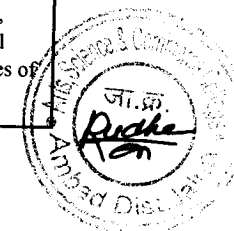
Matsyodari Shikshan Sanstha's

Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of B.C.A

Month	Class: BCA T.Y	Class: BCA T.Y	Class:BCA T.Y	Class:BCA T.Y	Class:BCA T.Y	Class:BCA T.Y
	Paper: Management Accountin	Paper: SQL 2017	Paper: Visual Basic	Paper: Orgnizational Behavior	Paper: Software Engineering	Paper: Bankng & Insurance
	Semester: V	Semester: V	Semester: V	Semester: V	Semester: V	Semester: V
Nov-20	Introduction to Mang A/c: Meaning, Defination, Features, Scope, Imoprtnance and Function Difference between Mang A/C, Fin A/C, Cost A/C Advantages and Limitations of Mang A/C.	Introduction To DBMS: DBMS and data models. Intro to Basic Data type, Advantages of DBMS Understanding client and server, intro to TSQL,history and Featres and type of TSQL.Commands	Intro to Visual Basic: intro IDE Overview, GUI, Programming Language, How t use VB edition Installation. Intro to VB Programming: Intro, Visual program and Event-Driven program, A simple Program, Variable: Public, Private, Static, Const, Datatype, Declaring Variable,	Evolution of Management thought: Classical School to Contingency School. Contribution of Management thinkers and proponents: Fredrick Taylor, Max Weber, Henri Fayol, Frank and Lillian Gilbreth, Henry Gantt, Elton Mayo and others. OB Study and Experiments:	Overview of systems analysis and desing system concept : Type of System, sys life cycle role & skill of Sys analyst, Models A) Current trends in Software Engineering B) Information requirement Analysis : DAT, DTD, DT, SE, FDD, DD	Banking in india: Meanig and definition of bank, commercial bank Structure, Function, credit creation of commercial bank, Co-Operative Bank & Regional Bank intro, obj, structre, organisation. Reserve Bank of India: Intro, Organisation, mang general fun, regulation of money & credit, credit control measures
Dec-20	Analysis and Interpretation of Fianncial Statement: Meaning, Defination, Defination, Scope of Fianncial Statement. Tools of F/S - cpmparative Financial statemnt ,common size financial statement,Trend Analysis.	Intro to SQL Server: Advantages and browback of SQL Server, comparison between SQL and Oracle, Install step of Server Connecting to Server Sever Type, Server Name, Authentication Models- SQL server, Windows, SQL Sever Mangement	Arithmatic Operators, Formatting Data, Branching and Looping Statement. Array and Procedures, functions: Types of array, User defined function OOPs- Class, Object, Event and Inheritance. Eception Handling- Intro When Error handling use, simple error handling, error handling example error object, mouse handling	individual Dyna mics -I Personality: Conceptualization, Discussions on Type. vs. Trait Theory and Nature vs. Nurture Type Theory: Freud 's Theory of Psychosocial Stages, CarlJung's Theory of Personality , Theory X vs. Theory Y and others.	Software Analysis: Requirements Engineering; Feasible study : Economical,Social, technical Requirement validation and management Cost Estimation Model; Activities in Requirements Determination: Reuirement Anticipation, Investigation, Specification.	Banker & Customer : The reationship between banker and customre, statutor obligation to honor cheque - banker lies, duty, right to claim incidental charges, right t charge interest Account of Customer : Precaution for accounting opening, KYC, Type of A/C. TDS. Special type of customer. Principles of Sound lending,



<p>Jan-21</p>	<p>Ratio Analysis: Meaning, Advantages, Limmitation, and classification of ration. Gross Profit Ratio.Net Profit Ratio, Return on Capital Employed ratio, Inventory Turnover ratio, Debtors & Creadit Turnover Ratio, Current Ratio, Liquid Ratio, Proprietary Ratio.</p>	<p>Transaction Management: Transaction concepts- Begin, Commit, Rollback, Save, Log File in Transaction Mang Concurrency Control : Intro Concurrcey control, Need For Concurrency, Looking Protocols, Transaction Recovery,SQL Facilities For Concurrency</p>	<p>Basic GUI Concepts: Intro to Form and Control- Create class, Object, Add Reome Forms and Controls, hide show method, load unload statement, Working with Properties and Method of Controls. MENU: Creating a menu system, Modifying and Adding menu item at run time, Data access method</p>	<p>Individual Dyna mics - Theories of Motivation: Maslow's hierarchy of Needs Theory, Herzberg's Two-Factor Theory,McClelland Hu man Motivation Theory, Alderfer's ER G Theory, Vroom's Expectancy Theory, Adam's Equity Theory, Skinner's Reinforcement Theory, Locke's Goal Setting Theory,</p>	<p>Software requirement specification Structure and content of the requirement specification analysis modelling Type fo requirement, Structure and standards followed for SRS, Characteristics of good SRS</p>	<p>Electronic Baking : Intro, traditional VS E banking, Electronic delivery channels, e banking transacton, truncated cheques and lectronic cheques advantage of e banking, RTGS NRFT E banking during & post COVID-19 Pandamic</p>
<p>Feb-21</p>	<p>Fund Flow Statement: Meaning uses Limitations, Sources and rses of funds. Funds from Operation, Statement showing changes in working capital. Cash Flow:</p>	<p>File Structure and Index: Operation on File, File of unordered and oerded records, over view of file Organization, index structure for Files, Multilevel indexing using B and B++ Trees</p>	<p>Data Control, Connectivity With SQL server, Operating of database through coding ADO data control, advantaage of of ADOC over DC</p>	<p>Communication: Concept, Process, Communication channels, Barriers and Implications for Managers, Group Development: Declination, Foundations of Group Behavior, Decisiol Making: Group vs. Individual D M Organizational Structures: Concept, Design Types, Chain of Command, Stress Management: Concept of Work Stress, Emotional Intelligence, and Measures for managing Stress.</p>	<p>Maintenance: Type of maintenance Maintennce cost Reverse Enginnering Intro to- legacy system.</p>	<p>Insurance : Concept and importance, principles of insurance, Growth and development of indian insurance industry, regulation of insurance , Intro to Life insurance and General Insurance life policy conditions, Risk and insurance</p>

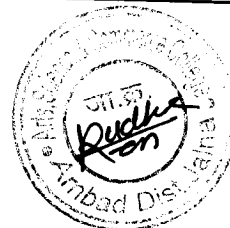
Matsyodari Shikshan Sanstha's

Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of B.C.A

Month	Class: BCA T.Y	Class: BCA T.Y	Class:BCA T.Y	Class:BCA T.Y	Class:BCA T.Y	Class:BCA T.Y
	Paper: Elements Of Commerce	Paper: Android 9	Paper: Business Law- III	Paper: Project	Paper: Software Testing	Paper: Service Marketing
	Semester: VI	Semester: VI	Semester: VI	Semester: VI	Semester: VI	Semester: VI
Apr-21	<p>HTML 5: Introduction , form elements - Date, Date Time, Email, Number, Range, Tel, Color, URL, Date Time Local, Month , Week, Time, Placeholder Attribute, Aittofocits Attribute, Required Attributes , HTML Audio , Video</p>	<p>Environment Setup: Developing for android installing the android SDK, Installing the updates to the SDK, Android Development Tools (ADT) Plugin, developing with Eclipse. Create Android Application, Create Android Virtual Device, and</p>	<p>Information Technology Act 2000: Cyber Crime : Meaning and Nature Terms used in Cybercrime : Hacking, Cyber Space, Leapfrog Attack ; Meaning and its effects on Cyber users Teenage Web Vandals, Cyber Fraud, Virus on the Internet, Defamation, Harassment and E- mail Abuse, Cyber Pornography,</p>	<p>1. The project should be done in Gore specialization area of B.B.A course only.</p>	<p>Introduction : Fundamentals of Testing What is Testing? Typical Objectives of Testing , Testing and Debugging Why is Testing Necessary? Testing's Contributions to Success Quality Assurance and Testing Errors, Defects, and Failures Defects, Root Causes and Effects Seven Testing</p>	<p>introduction : Service Marketing, Concept, Nature of Services, Characteristics of Services, Classification of Services, Need and Importance of Service Marketing, objectives and Problems of Service Marketing, Difference between Goods and Service, Difference between Software Products and Software Services</p>
May-21	<p>XML: Concept of XML, features of KML, Writing XML elements attributes etc. XML with CSS, programs on it. XML with DSO, programs on it. XML Namespace, XML DTD, programs on it. XML schemas, waiting simple sheet using XSLT, SAX Parser, DOM Paiser, Introduction to SOAP, Examples of XML</p>	<p>Application Components: IT Application Components Activities, Services, Broadcast Receivers, content Providers. Anatomy of Android Application, The Main Activity File, The Manifest File, The Strings File, The R File, The Layout File, Running the Application. Types Of Android Application:</p>	<p>IT Contracts and Standards Contracts in the InfoTech World, Contract Formation on Internet, Terms and Conditions on Contracts NIST: National Institute of Standards and Technology; Objectives and working Copyright - Meaning, Ownership and Assignment, License of Copyright,</p>	<p>2. Comprehensive case study (covering single organization/multifunctional area problem, formulation analysis and recommendations)</p>	<p>Testing Throughout the Software Development Lifecycle Software Development Lifecycle Models Software Development and Software Testing Static Testing: Static Testing Basics Work Products that Can Be Examined by Static Testing Benefits of Static Testing</p>	<p>Marketing Communication: Meaning, Elements of marketing communication, Process of marketing communication The Customer, The Business Environment and The Media, Role of Marketing Communication, Approaches in Marketing Communication Corporate and Marketing oriented,</p>



Jun-21	<p>jQuery - I: Introduction to jQuery, Syntax Overview Anatomy of a jQuery Script, Creating first jQuery script Traversing the DOM, Selecting Elements with jQuery, Refining & Filtering Selections, Selecting Form Elements Working with Selections - Ciraining, Getters & Setters CSS,</p>	<p>Resources Organizing & Accessing: Alternative Resources, Accessing Resources. The Dalvik Debug Monitor Service, the Android Debug Bridge. UI Layouts: Android Layout Types, , Text View Attributes, AutoComplete Text View Attributes, Button Attributes, Image Button</p>	<p>Technologies and Services :Firewall, DoS, Digital Signature, Digital Signature Certificate, Packet sniffer, SSL, HTTPS, Pen Register CERT : Cyber Security and Protection to Cyber Users : National Cyber NCSP 2013 : meaning, Aim and Objectives, Reasons of NCSP 201 3,</p>	<p>3. Inter-organizational study aimed at inter-organizational comparison/ validation of theory/survey of management services.</p>	<p>Differences between Static and Dynamic Testing Review Process Work Product Review Process Roles Test Techniques: Categories of Test Techniques Choosing Test Techniques Categories of Test Techniques and Their Characterestistics Black-box Test Techniques Equivalence Partitioning Boundary Value</p>	<p>Promotion and Distribution of Services: Promotion Meaning and Concept, Objectives in Service marketing, Advertisements and Sales Promotion of Services, Distribution: Concept, Channels of Distribution, Obstacles in distribution, Recent Trends in distribution,</p>
Jul-21	<p>jQuery - II : Manipulating Attributes, Utility Methods Events - Connecting Event to Elements, Name spacing Events, Event handling, Triggering Event handlers, Event Delegation JQuery Effects -hide/show, fade, sli de, animate, callback, stop Interactions — Drag gable, Droppable,</p>	<p>Intents and Filters: IN Intent Objects, Android Intent sandard, Actions, Data, Category, Extras, Flags, Component Name, Types of Intents: Android Application Life Cycle. Fragments: The Fragment Life-Cycle, Fragment States, s. Event Handling: Event Listeners & Event Handlers, Event Listeners Registration.</p>	<p>Strategies NCSP 2013 NSA : National Security Agency Consumer Protection Act 1986 (with Amendments 2019) • Essential terms in Consumer Protection Act, Consumer Complaint, Defects in Goods and Services, Restrictive and Unfair Trade Practices, Instance or Unfair Trade Practices,</p>	<p>4. Evolution of any new conceptual / theoretical framework. 5. Field study (empirical study). 6. The project can be based on primary or secondary data</p>	<p>Analysis' Decision Table Testing State Transition Experience-based Test : Techniques Error Guessing Exploratory Testing Checklist-based Testing Test Case What is Test Case? , How to write effect test case, features of good test case, Format for Manual Test Case Writing</p>	<p>Service Process and Performance: Service process Concept, Steps in Service Process, 7 P's of Service Marketing Mix, Performance in Service Marketing Concept, Monitoring of Marketing Performance, Triangle Model for Performance, Special Service Marketing tics</p>

Matsyodari Shikshan Sanstha's

Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of B.C.A

Month	Class: BCA S.Y	Class: BCA S.Y	Class:BCA S.Y	Class:BCA S.Y	Class:BCA S.Y	Class:BCA S.Y
	Paper: Principles of mangeme	Paper: OPPTS using C++	Paper: Business Law I	Paper: DBMS	Paper: E- Business Ess	Paper: Data Structure & algo
	Semester: III	Semester: III	Semester: III	Semester: III	Semester: V	Semester: III
Nov-20	Intro of Management : Introduction, Meaning and concept of mang, nature. scope, characteristics and importance of mang, role and functions of mang, level of mang, difference between mang and admin, brief review of mang thoughts of F. W. Taylor, Henry Fayol, Elton Mayo, Peter Drucker etc.	Introçuction to C++: Basic concepts Object, Data Abstraction, benefits & applications of OOP Creating a source file, compiling and Linking, Tokens, Expressions and Control structures: Variables - Declaration and Dynamic initialization Reference variable, Operators in C++, Control structures	Indian Contract Act 1872: Meaning and Definition of Agreement and Contract. Features of Contract Act, Types of Contract, Essentials of valid contract, Offer and Acceptance, Breach of Contract Sell of Goods Act 1930: Meaning and Important Definition Sell of Goods Act	introduction (Theory) : Data, Tables, DBMS, Characteristics of DBMS, need of DBMS, attributes entity, E-R Diagrams, relationships, ODBMS, Two tier and three tier architecture,	Introduction to e-business : Origin, Concept, Nature ,Definition, Features, Merits, Demerits.	Introduction to Data Structure: Types, Primitive, Secondary, Simple Compound, Linear and Non Linear Data Structure. Linear Data Structure: Array, Linked List, Queue, Stacks, Operations on linear Data Structure, Memory Representation of Linear Data Structure
Dec-20	Managerial Planning and Decision Making: Planning: meaning and definition, characteristics and importance of planning, planning process, benefits of ideal planning limitations of planning, types of plans. Forecasting, Decision making.	Functions in C++: intro, the main function, Function prototyping, Call by reference, Return by reference. Inline function making an outside function inline, Arguments Classes and Objects: Intro, Creating a class and objects. Defining memberfunctions inside and outside class	Agreement to sell vs. Contract of sell. Essentials of valid contract of sell, Condition and Warranty, Sell by Auction and Hire Purchase Agreement, Buyers and Sellers Rights and Duties, Negotiable Instrument Act 1881: Concept and Imp definition of Act, Promissory Note and Cheque, Char of the Act,	Transactions (Theory): Concept of transaction, ACID properties, Transaction and system concepts, States of transaction, Serializability, backup and recovery	E-business Environment: Information society, building process for communities, multi — option society, ethics in electronic business. E-business & ICT : Meaning, history, importance of internet	Non Linear Data Structure: Tree, Graphs, Binary Tree Structures, Networks, Operations on Non Linear Data Structure, Implementation of Data Structure in computer memory

Rudha
10/11

Jan-21	<p>Staffing and Organization: meaning and definition of staffing, need and importance of staffing, Selection & Organization - meaning, definition and importance types of organization.</p> <p>Directing and Controlling : Directing: meaning, definition and importance of directing, principles</p>	<p>Static data members and static member functions, Array of objects. Objects as function arguments, Friend functions, Returning objects, Constructors, Types of constructor, Destructors.</p> <p>Inheritance : Introduction, Base class and derived class examples, Types of Inheritance.</p>	<p>Dishonor of Negotiable Instrument, Discharge of Negotiable instrument, Bill of Exchange</p> <p>Consumer Protection Act (Amended Act 2002): Meaning and Important Definition of Act, Significance of Consumer Protection, Objectives of the Act, Workings of Consumer Protection Council.</p>	<p>Concurrency (Theory): Concurrent transactions, Two-phase locking techniques</p> <p>Concurrency control, Locking techniques, E-R Diagram, Deadlock</p>	<p>internet v/s online service, basic, knowledge of computer network, world wide web, web page, website.</p> <p>E-Business Models & Supply Chain Management: Classification of E business models, definition of supply chain management elements of SC, key issues in SCM.</p>	<p>Algorithms: Algorithm Concept, Features & Characteristics, Designing of Algorithm for Insertion & Deletion of Records in Array, Linked List, Stack, Queue, Traversal of Linked List, Stack, Queue, Binary Tree</p>
Feb-21	<p>Controlling: meaning, definition, need and importance of control. process of control, techniques of control</p> <p>Recent Trends in Business Management: Change mang. disaster mang. TQM, Bench Marking, Six Sigma, Mang development: meaning, definition. Need and imp. mang devlp process</p>	<p>Polymorphism : Compile Time Polymorphism, Function overloading, Operator Overloading Intro, Overloading unary and binary operator, Overloading using friend function, Overloading insertion and extraction operators, Runtime Polymorphism, pointers to objects. pointer</p>	<p>Composition of consumer disputes redressal agencies.</p> <p>Cyber and IT Act 2000: Important Definition - IT Act 2000. Cyber Fraud and Cyber Cheating, Copy right Meaning and Definition, License of the Copy Right, Digital Signature, Digital Signature Certificate.</p>	<p>Normalization (Theory): E.F. Codd rules, Normal forms based on primary keys(1NF, 2 NF, 3 NF, BCNF)</p> <p>MS-Access (Theory/ Practical): Primary Key, Foreign Key, Creating tables in MS-Access, creating primary key, foreign key and create queries to fetch data.</p>	<p>E-Payments : E-Money and E-payments, different forms of E-payment, E-banking RTGS, NEFT, EFT, Internet Banking, Mobile Banking, GOOGLE PAY, PA YTM etc</p>	<p>Graph Theory and Sorting:</p> <p>Graph Theory: Terminology, Sequential Representation of Graph, Adjacency Matrix, Linked List Representation of Graph, Operations on Graph, Traversing Graph, Bubble Sort, Selection Sort, Merge Sort and Insertion Sort</p>

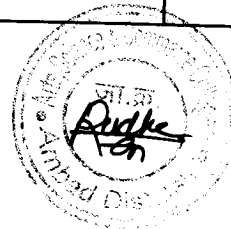
Matsyodari Shikshan Sanstha's

Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of B.C.A

Month	Class: BCA F.Y	Class: BCA F.Y	Class:BCA F.Y	Class:BCA F.Y	Class:BCA F.Y	Class:BCA F.Y
	Paper: Accountancy II	Paper: Industrial Organisation	Paper: Mathematics	Paper: Programming in c	Paper: Principles of management	Paper: Basic Web technology
	Semester: II	Semester: II	Semester: II	Semester: II	Semester: II	Semester: II
Apr-21	<p>Goodwill of partnership Firm : Meaning, Need, factors affecting goodwill, methods of valuing goodwill, average profit method, super profit method</p>	<p>Concepts of industrialization: What is industrialization, its determinates problem of industrialization, corporate social responsibility of business</p>	<p>Logarithms, Rules for multiplication division and exponentiation</p>	<p>Introduction and importance of c language, Constants, variables and data types, character set tokens, constant, keywords and identifiers</p>	<p>Definition, Nature & Scope of management, importance, management as an art, science and profession, different approaches to management</p>	<p>Event handling & validations on form: javascript handling event on button, textbox, radio button, checkbox, dropdown box, text area etc,</p>
May-21	<p>Accounts of non trading concern : Preparation of receipts and payment account, income and expenditure account and balance sheet</p>	<p>Scale of operation and size of business units, economics of scales meaning of large medium and small size business</p>	<p>Permutations, combinations, and binomial theorem</p>	<p>Operators and Expressions: Arithmetic, relational and logical operators assignment, condition between special operators</p>	<p>Evolution of management thought contribution of Taylor, Fayol, Follet, Drucker</p>	<p>Form validation : numeric, alphanumeric, alphabets and any combination of these</p>



<p>Jun-21</p>	<p>Company final accounts : Treatment of provisions, treatment of dividends, interim & final dividends on shares, income tax on dividends, payment on dividends, TDS</p>	<p>Concept of concentration of power : combination, process of integration vertical horizontal lateral and diagonal and service integration types - pools, trusts carte. Holding compnies,</p>	<p>Determinate - defferent methods of calculating determinants</p>	<p>Decision making and looping : IF statement switch statement, GOTO statement WHILE DO and For Statement Array : onde dimensional two dimensional, Handling of character set</p>	<p>Management Process, Planning, orgnizing, staffing, direction, controlling, coordination, leadreship</p>	<p>VBScript introduction to VBScripts, sta types, contro; structures and looping functions in vbscript, client side web scripting, validating forms DOM, Handling errors</p>
<p>Jul-21</p>	<p>Single Entry System : Concept ascertainment pf profit from records of single entry method</p>	<p>Industrial Polocy Resolutions of 1991 7 WTO Corporate structure of business and essential of corporate Governace</p>	<p>Matrix - representation - addition, substraction, multiplication and division incerse transpose, adjoint cofactor singular arrays vectors.</p>	<p>Structure and Unions: Definition & initizations and assigning value to members ayyays of structures and arrays within structures Pointer Declaraton and intialization of pointer, File maintenace, user defined functions.</p>	<p>Functional Management, Human Management, Marketing managemnt, financial managemnt, material managemnt.</p>	<p>Web publishing and advand HTML concepts : Publishing the site, the realities of publishing and maintaining a web site, intro of search engine optimization, meta - information, overview of client/server Programming on the web</p>

Jan-21	Windows : Exploring Window Settig,control panel,Remove Add Hardware,Printers,Data Time Regional Setting,Game Recycle Bin etc....	Partnership account Introduction Preparation of Partnership final accounts.	3. Production – Meaning _ Laws of returns. Economics Development – Concept, of economic development,	6. Measures of dispersion – Range, Quartile Deviation, Standard Deviation. 7. Correlation Analysis: Introduction, Utility of the study of correlation, correlation and causation,	– interview, their types, techniques and styles Written Communication: Meaning and objective of written communication – medias of written communication – features of written communication – preparation, analysis and interpretation of reports.	3. CSS Introduction to style sheet, types of style sheets – inline, External, Embedded CSS, text formatting properties, CSS border, margin properties, Positioning use of classes in CSS, Color properties, use of <div> & , padding, CSS multiple columns.
Feb-21	Study Of Internal & External Commands Of MS-DOS DIR, DATE, TIME,CLS,COPY CON,COPY,DELETE,REN, FIND,RESTORE, VER,TREE MOVE.MEM,SYS,XCOPY, BUFFER,GOTO,END	Depreciation introduction meaning and definition methods of depreciation 1. Fixes installment method 2. Reducing balance Method.	indicators of economic development factors promoting economic development obstacles in the economic development of under developed countries features of under development economy with reference to india	Type of correlation – Positive and Negative Correlation Karl Pearsons coefficient of correlation.	Business letter writing – Application, references, Preparation of Tenders and Quotations – Drafting of sales circular letters. Use of electric equipment in business Communication – A hands on Experiments on Telex, Fax Pager Cellular Phone, Computer and internet.	4. JavaScript Basic Introduction to Java Script, variable, commands, operations, syntax, objects, data types, JavaScript DOM theory.

Matsyodari Shikshan Sanstha's

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Annual Teaching Plan (Year: 2020-2021)

Department of B.C.A

Month	Class: BCA S.Y	Class: BCA S.Y	Class:BCA S.Y	Class:BCA S.Y	Class:BCA S.Y	Class:BCA S.Y
	Paper: Cost Accountancy	Paper: Java Programming	Paper: MIS & DSS	Paper: Business Law — II	Paper: Entrepreneurship	Paper: advance networking
	Semester: IV	Semester: IV	Semester: IV	Semester: IV	Semester: IV	Semester: IV
Apr-21	<p>Cost Accounting : Definition, Nature, & Scope of Cost Accounting, Distinction between Cost, Financial and Management Accounting, Classification & Elements of Cost, Material, Labor, Expenses, Direct & Indirect Cost, Overheads</p>	<p>Overview Of Java Language: Java history, java features, how java differ from c and c++, JVM, java program structure, type comment, java tokaens, control statement.</p>	<p>Concept, Definition, Characteristics, Objectives, Role and inn pact of MIS, Management as a control system, MIS: A support to the management, Application of M IS, Organization Effectiveness, Decision making concept, Decision making process, Organizational decision making &M IS and decision</p>	<p>Contract Act: Special Contracts - Law of Indemnity, Guarantee Contracts, Law of Bailment & Pledge, Agency Contracts. Company Law 2013: Introduction of Company Act, Meaning & Definitions, Features of Co. Act</p>	<p>Originating Theories of Entrepreneurship: Economic Theory, Sociological Theory, Psychological Theory, Innovative theory of Entrepreneurship by Joseph Schumpeter. Theory of Achievement Motivation by MC Clelland The Kakinada Experiment. Hoselitz sociological theory Clelland the Kakinada Experiment.</p>	<p>Basic of computer network : computer netwrok, definition, goals, applicition, structure, components, topology, communication types, Mopdes of communication</p>
May-21	<p>Costs : Prime Cost, Factory / Works Cost, Administrative Cost, Total Cost, Cost of Sales Preparation of Cost Sheet :</p>	<p>Classes, Objects and Methods : Intro, defining class, creating Objects, use of this key word method parameters, nethod overloading, static member, final method, inheritance nad its types</p>	<p>Information: A quality product. IT enabled services, e business, wireless technologies etc. In formation system in business, Computer based In formation system, 1 imitation and disadvantages of IS, knowledge and knowledge management system, business intelligence</p>	<p>, Types of Company, Share Capital & its types, Incorporation- Formation of company, Memorandum & Articles of Association SEBI Act 1992 :- Introduction of the Act, Meaning & Definitions, Basic Characteristics of the Act</p>	<p>Types of Entrepreneurship: Recent Trends Sociopreneur, edupreneur, ecopreneur and agropreneur. Women Entrepreneurs, Self Help Groups Identification of Business Opportunities: Environment scanning meaning and benefits,</p>	<p>Network Models : Design issue of the layer, protocol hierarechy, ISO-OSI Reference Model, Internet Model, Comparison of ISO-OSI & TCP/IP, Addressing</p>



<p>Jun-21</p>	<p>Material: Purchasing, Purchase Requisition, EOQ, Purchase Procedure, Receiving & Recording of Material, Documents, Goods Received Note, Bin Card, Issue of Materials, Pricing Method, LIFO, FIFO, Average Method</p>	<p>Interface, package and Exception Handling: Defining and implimaenting interface, inner classes packages- create package, access package, type of error, multiple catch statement</p>	<p>System concept and control, types of system, general model of MIS, need of system Analysis, System Development Life cycle, development process of MIS, Strategic design of MIS, Business-process, Process mode of an organization. MIS and BPR.</p>	<p>, Obligation of SEBI, issue of Capital, Discloser, Listing & its role in Stock Market Cyber & I.T. Act 2000 (with Amendment) : Need & Significance in modem era, Character & User of Internet Technology, On Line Contracts, Hacking, Phishing, Privacy Terrorism, Privacy, Section 66A</p>	<p>Market Research: Meaning, need and importance of market research. Techniques in Marketing Research - Field Survey Technique, Test Marketing, Delphi Technique, Desk Research, Observation Method and Experiment Method</p>	<p>Transmission Media : Guid Media, Coaxial Cable, Twisted pair, fiber optics cable, unguided media</p>
<p>Jul-21</p>	<p>Wages : Compensation, Methods of wage payment, Fixed Rate, Piece Rate, Contract, Bonus, Halsay & Rowan Plan</p>	<p>String and stresam: string classes, string buffer class, types of stream classes, byte stream classes. Applets: Intro to applet type sof applet applet vs application, applet class.</p>	<p>DSS: concept and Philosophy, objectives and characteristic of DSS, major functions of DSS, Components of DSS, DSS generator and tools, 1 imitations of DSS, GDSS, components of G DSS, Knowledge system, Expert system, application of ES, benefits and Limitations of ES, ERP, ERP models</p>	<p>Micro, Small & Medium Enterprises Development Act 2006 {MSMED Act - 2006} : Introduction, Definitions, Features of the Act, Establishment of National Board of MSME, Power & Duties of the Board, Classification of MSME, Promotional Measures of the Act.</p>	<p>Innovation in Entrepreneurship: Purposeful innovation concept, need, process, principles of purposeful innovation, Incubation centers Meaning, Services and role of incubation centres</p>	<p>Netwrok Connectivity Device : categories of connectivity devices, passive & active hub, repeaters , bridge, transparent briges, sourse routing bridge</p>

Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Department of Commerce

Name of Teacher: Dr. D. A. Jogdand

Month	Class: B. Com. First Year	Class: B. Com. Second Year	Class: B. Com. Third Year	Class: B. Com. Third Year
	Paper: FINANCIAL ACCOUNTING - I Semester: I	Paper: Corporate Account -I Semester: III	Paper: Auditing Semester: V	Paper: Rural development Semester: V
Nov-2020	Unit I: Book Keeping And Accountancy Meaning, Scope, Classification, and Rules of Accounts, Accounting Cycle, Journal, Ledger, Balancing of Account.	Unit-I- Issue and forfeiture of shares, Re-issue of forfeited shares <ul style="list-style-type: none"> • Meaning of shares • Issue of shares-at par, at premium, at discount • Collection of share money Collection at lump sum Theory Collection in Installment Issue of share in consideration of assets etc. 	Unit-I: Auditing Meaning, objectives , scope General principles, types of errors and fraud, audit program , audit note book.	Unit I Introduction to Rural Development: Meaning and Definition of Rural Development Scope of Rural Development, Significance of Rural Development in Indian Context. Causes of Rural Backwardness, Determinants of Rural Development in India.
Dec-2020	Unit II: Final Accounts of Sole Trader	Unit-II – Redemption of Debentures <ul style="list-style-type: none"> • Types of Debentures • Methods of Redemption- Redemption in Installment, Redemption in lamp Redemption in lump sum 	Unit-II: Internal check system: Internal control: meaning, objectives and significance, internal check auditors. Unit-III: Vouching: Meaning, needs and importance, vouching of cash & transaction, verification and valuation of asset and	Unit II Rural Poverty and Rural Unemployment: Meaning and Definition of Poverty, Causes of Rural Poverty, Remedies of Eradication of Rural Poverty, Meaning and Definition of Unemployment, Types of Unemployment in Rural India, Food Program during COVID-19 Pandemic.



			liabilities.	
Jan-2021	Unit III: Depreciation Fixed, Reducing, Annuity and Sinking Fund Method .(I.C.T. Use in minimum one lecture)	Unit-III -Redemption of Preference shares <ul style="list-style-type: none"> • Types of Preference shares Theory • Redemption out of fresh Issue of shares • Redemption 	Unit IV : audit of limited companies Company auditors –appointment of auditor , power , duties and liabilities of auditor, remuneration of auditor, and removal of auditor. Audit reports: meaning and definition of auditor’s report, types of reports , standard report and qualified report.	Unit III Rural Development Programmes in India : Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pradhan Mantri Gram SadakYojana (PMGSY), Pradhan MantriAawasYojana (Gramin), DeendayalAntayodayaYojana - National Rural Livelihood Mission (DAY-NLRM), Model Village Concept- SaansadAadarsh Gram Yojana (SAGY). DeenDayalUpadhyayaGrameenKaus halyaYojana (DDU- GKY), Training of Rural Youth for Self Employment (TRYSEM).
Feb -2021	Unit IV: Hire Purchase System & Installment System	Unit-IV- Final Accounts of Joint stock company	Unit V : audit of computerized system Auditing in an EDP environment , planning and audit in a computer environment , general EDP control, EDP application control, system development data transfer , audit practice in relation to	Unit IV Agribusiness : Meaning of Agribusiness, Importance of Agribusiness, Scope for Agribusiness in India, Major Challenges in Development of Agribusiness Sector in India Impact of globalization on Agribusiness Sector in India. Unit V Agricultural Marketing : Meaning of Agricultural Marketing, Scope of Agricultural, Marketing, Importance of Agricultural Marketing, Difference between Marketing of Agricultural Goods and

			computerized system, computer assisted audit techniques. (GAAT).	Manufactured Goods, Problems of Agricultural Marketing and Measures to Solve Them.
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Annual Teaching Plan (Year: 2020-2021)

Month	Class: B. Com. First Year	Class: B. Com. Second Year	Class: B. Com. Third Year	Class: B. Com. Third Year
	Paper: FINANCIAL ACCOUNTING - II	Paper: Corporate Account -II	Paper: Direct Tax	Paper: Advertising and Salesmanship
	Semester:II	Semester: IV	Semester: VI	Semester: VI
Apr-2021	Unit I: Accounting Principles AS1, AS2, AS9, AS10, AS17, .(I.C.T. Use in minimum one lecture) Unit II: Final Account Non-Trading Concern .(I.C.T. Use in minimum one lecture)	Unit-I Amalgamation of Joint stock companies <ul style="list-style-type: none"> • Purchase consideration • Closing Entries in the books of dissolved companies • Acquisition entries and opening Balance sheet of New company (after amalgamation) 	Unit-I- Income Tax Act- 1961: Introduction to Income Tax Act 1961, Basic Concepts- Assessee, Person, Income, Classification of Income, Agricultural Income, Casual Income, Assessment, Previous Year, Assessment Year, Heads of Income, Gross Total Income, Total Income, Incomes exempt from Income tax, Deduction in computation of Total Income, Filing of return, Advance payment of tax, Tax deduction at source, Refund of tax. (ICT Use in Minimum one lecture)	Unit I Concept of salesmanship Essential skill and types salesmanship Advertising publicity, Attitude and value
May-2021	Unit III: Branch Account (Numerical) Debtors System, Stock and	Unit-II Absorption of Joint stock company <ul style="list-style-type: none"> • Purchase consideration • Ledgers in the Book of Absorbed 	Unit-II- Income from Salary (Numerical): Meaning, Definition, of salary, Computation of Income from Salary- Allouces, Perquisite, Gross Salary,	Unit II Process of Selling and sales promotion Steps in Process of selling, AIDA concept, Model of selling Concept of

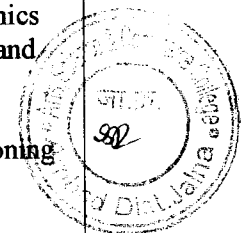
	Debtors System	(Dissolved) company • Acquisition entries in the books Absorbing company • Balance sheet after absorption.	Deductions from gross salary, Net salary Unit-III- Income from Business and Profession (Numerical) Business profession, Deemed Income from Business or Profession, Computation of Income from Business and Profession, Deductions.(ICT Use in Minimum one lecture)	selling Emerging techniques, Unit III Advertising and Media Advertising Concept, Meaning, needs, objective, merits and demerits of advertising, Electronic media, social media.
Jun-2021	Unit IV: Department Account (Numerical)	Unit-III Reconstruction of Joint stock company Unit-IV Accounts of Holding company (With one subsidiary) Pre-post acquisition profit, Reserve • Pre-post acquisition loss Theory	Unit-IV- Income from House Property (Theory): Basis of Charge, Annual value, Determination of Annual Value, Computation of Income of House Property, Deduction U/S 24.	Unit IV Advertising media Types of media, Electronic media, press conformance, web advertising, types of online advertising.
Jul -2021	Unit V: Consignment Account (Numerical)	Unit-V- Liquidation of Joint stock company Solvent & Insolvent Company	Unit-V- (A) Income from Capital Gain (Theory): (B)-Income from other sources (Theory): Income taxable under the head Income from other sources u/s-56., Deductions from Income from other sources u/s-57	Unit V Advertising Agencies The role of importance of advertising, organization patterns, selection of advertng, agency commission and fee, Advertising types of online and organization

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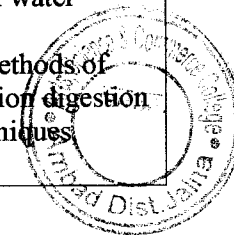
Month	Class: B.Sc.I	Class: B.Sc.II	Class: B.Sc.III
	Paper: I and II	Paper: VII and VIII	Paper: XV and XVI
	Semester: I Theory	Semester: I Theory	Semester: I Theory
Nov	<p>*Introduction to Zoology -Animal Kingdom -Protozoa, Porifera</p>	<p>*Agnatha-Out line classification and general characters of cyclostomata.Pisces- Out line classification and general characters *Genes and its expression-Definition, concept and function of gene. Transcription of gene: - Initiation, elongation and termination.</p>	<p>* Introduction of ecology. Abiotic environmental factors-Temperature, Light, Adaptation to salinity and moisture * Introduction to biotechnology -Biotechnology in India</p>
Dec	<p>*Porifera-General characters sycon- Different types of cells in sycon, canal system in Porifera * Concept of cell -General structure of cell -organization of cell-Plasma membrane Endoplasmic reticulum, golgi bodies, Mitochondria-Morphology, ultra structure, biogenesis</p>	<p>*Scoliodon- External characters, Digestive system, Respiratory system, Blood Vascular System and Nervous System. Amphibia-classification and general characters. Development of frog - Fertilization Cleavage etc Neotony Parental care in amphibia *Genetic code-Concept properties of genetic code Translation of gene Population Genetics Gene Pool Frequency. Herdy-weinberg's Law.</p>	<p>* Biotic environmental factors Composition, Predation, Commensalisms, Mutualism, Parasitism * Genetic engineering: Concept and definition. Steps involved in gene cloning Application</p>
Jan	<p>* Coelenterate: - General characters Obelia: - Morphology of Obelia colony, Development of Hydra, Polymorphism *Nucleus: - Structure and function. DNA Structure Types of RNA</p>	<p>* Reptilia-classification Calotes-External features, Respiratory system and Blood vascular system Poisonous and non-poisonous snakes * Human Genetics and disorders</p>	<p>*Population:concepts,characteristics of population; Population growth and regulation. *Isolation & amplification of desired gene Genomic library, cDNA library In vitro synthesis of gene Polymerase chain reaction. Enzymes in gene cloning</p>
Feb	<p>*Helminths- General characters -Fasciola hepatica, Taenia solium -Ascaris lumbricoides *Lysosome--Ribosome Cytology of Cancer</p>	<p>* <i>Aves Columba livia</i>: - External features, Respiratory system, Embryology of chick. Flight adaptation and Migration in Birds. * Microbial Genetics Transformation. Conjugation Transduction</p>	<p>*Community: concept and types. Structure and character of community, Community succession *Cloning vectors -Gene transfer methods</p>
	<p>*Annelida-General characters -Leech- Digestive, Excretory and Reproductive systems *Methods in cell biology -Microscope-light, Electronic -Microtechniques-Microtomy</p>	<p>* <i>Mammalia Ratus ratus</i> Blood Vascular System, Urino-genital System and Adaptive radiation and Placentation in Mammals * Genetic Engineering Concept Restriction enzymes Concept and types Cloning vectors Construction of r-DNA. Application of r-DNA technology</p>	<p>*Ecosystem: components and dynamics of ecosystem, Marine, pond, Forest and Desert ecosystem. *Screening of cloned gene -Problems and solutions for gene cloning</p>



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Annual Teaching Plan (Year: 2020-2021)

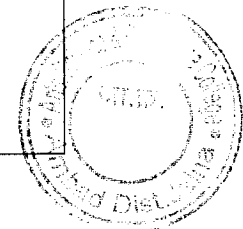
Month	Class: B.Sc.I	Class: B.Sc.II	Class: B.Sc.III
	Paper: III	Paper: IX and X	Paper: XVII and XVIII
	Semester: I Practical	Semester: I Practical	Semester: I Practical
Nov	*Study of slides from Ciliates, Opalinates, and Flagellates	*Museum study of vertebrates. -Preparation of paper model of DNA and study of DNA structure -Study of protein synthesis with the help of charts/models.	*Estimation of productivity of pond ecosystem -Determine the following parameters of soil. pH, alkalinity chlorinity salinity -Principle and application of gel electrophoresis, column chromatography, high pressure liquid chromatography, centrifuge, laminar flow, spectrophotometer
Dec	-Study of museum specimen and slides from Porifera to Annelida. -Dissection of Leech for systems. -Dissection of Earthworm for systems	-Dissection of Scoliodon / Labeo Afferent and efferent, Cranial Nerves, Brain. -Estimation of DNA from animal tissue with the help of Diphenyl amine method. -Study of preparation of Normal Karyotype of human.	-Analysis of DO, CO ₂ , salinity, chlorinity of water sample. Study of animal association ship -Estimation of total DNA from animal tissue using Diphenylamine method. -Estimation of total RNA from animal tissue using orcinol method
Jan	-Mounting of sponge, Obelia colony, Jaws of leech. Spermataca, testes nerve ring of Earthworm, Parapodia of Nereis. -Study of cell organelles	-Dissection of Rat/ Frog: Urinogenital system, Arterial system, Venous System, Brain of Rat. -Karyotypic study of Down's syndrome, Turner's syndrome, Klinefelter's syndrome with the help of photograph. -Detection of Barr body from epithelial cell	-Estimation of population density by Quadrant method on field and by Simulation method. -Isolation of messenger RNA from animal source using affinity chromatography -Isolation of total DNA from tissue
Feb	-Squash preparation of Onion root tip to study Mitosis. -Preparation of polytene chromosome in chironomous larva.	-Mounting of Placoid, Cycloid and Ctenoid scales of fish -Study of Embryological development of chick according to hours of incubation -Problems on sex linked inheritance. -Problems based on Hardy – Weinberg's law	-Preparation of permanent slides of following <i>Spirogyra</i> , <i>Verticella</i> , <i>dogonium</i> , <i>Daphnia</i> , <i>Cyclops</i> , <i>Mysis</i> , <i>Cypris</i> , <i>keretella</i> -DNA electrophoresis by agarose gel
	-Microtechnique: Microtomy and Staining -Study of Microscopy	-Visit to Zoological museum/Zoo Park and Submission of report 7. Write a report on common birds/mammals in your locality, scientific names and economic importance. -Study of gene frequency and mutants of man	-Project report: - Forest or fresh water ecosystem -Demonstration of Animated methods of following gene cloning, restriction digestion of DNA, southern blotting techniques, northern blotting technique



Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

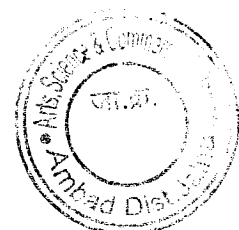
Month	Class: B. Sc. I	Class: B. Sc. II	Class: B. Sc. III
	Paper: IV and V	Paper: XI and XII	Paper: XIX and XX
	Semester: II Theory	Semester: II Theory	Semester: II Theory
April	<ul style="list-style-type: none"> * Arthropoda-General characters * Elements of heredity & variation Definition of genetics and variation Mendel's laws of heredity 	<ul style="list-style-type: none"> * Digestion-Buccal digestion, Gastric digestion, Intestinal digestion * Enzymes-concept and nomenclature, Properties, classification, enzyme action, Factors affecting enzyme action 	<ul style="list-style-type: none"> * Organic evolution: concept. - Theories of organic evolution * Animal cell culture and requirements - Application and limitations of cell culture
May	<ul style="list-style-type: none"> * Prawn: - Digestive, Nervous, & Reproductive systems. Cockroach Characters, Digestive, Respiratory and Reproductive systems * Gene interaction: modifications in Mendelian phenotypic ratio like, Epitasis Supplementary & Complementary gene 	<ul style="list-style-type: none"> * Enzymes: concept and nomenclature, Properties, classification, enzyme action, Factors affecting enzyme action * Carbohydrates: Classification, mono, di, oligo and polysaccharides. Metabolism: - Glucogenesis, Gluconeogenesis, Glycolysis, TCA. & oxidative phosphorylation. 	<ul style="list-style-type: none"> * Origin of Life: Definition, Abiogenesis, Biogenesis, Chemical evolution of life. Evidences of Organic Evolution * Manipulation of reproduction and transgenic animals - Transgenic animals methods
June	<ul style="list-style-type: none"> * Mollusca characters Pila-Characters, Respiratory, Circulatory, Nervous and Reproductive systems * Multiple Alleles, Coat Color in rabbit, ABO Blood group in man, Rh factor Cytoplasmic inheritance. maternal effect. shell Coiling in snail Male sterility, CO₂ sensitivity, Kappa particles. 	<ul style="list-style-type: none"> * Circulation: mammalian heart, Blood and its composition, blood clotting. 4. Excretion: Structure of kidney, uriniferous tubules. Urine formation process, Counter current multiplier system * Proteins: classification – simple, conjugated and derived proteins, Structure of proteins. Metabolism: - Deamination and transamination 	<ul style="list-style-type: none"> * Darwinism: Natural selection theory, Artificial selection theory and sexual selection theory. - Elemental forces of evolution * Protein engineering: - Site-directed mutagenesis Commercial production of enzymes
July	<ul style="list-style-type: none"> * Echinodermata: Asterias (Sea Star): - Morphology of oral & aboral view, Water vascular system, Reproductive system including development * Sex Determination - Chromosome theory Genic balance theory Triploid intersexes and Gynandromorphs, X linked and Y linked inheritance 	<ul style="list-style-type: none"> * Nerve Physiology: Structure of nerve cells and neuron. Neurotransmitters. Synapses: Ultra structure and function Muscles Physiology: Ultra structure of smooth muscle, striated muscles, and cardiac muscles. Muscle contraction. * Lipids: Definition, classification and types Metabolism: - β oxidation and cholesterol biosynthesis . 	<ul style="list-style-type: none"> * Basic patterns of evolution Sequential and divergent evolution. Microevolution, Macro evolution, Mega evolution - Species and speciation * Gene therapy and DNA fingerprinting - Human disease-diagnosis using biotechnology
	<ul style="list-style-type: none"> * Protochordata Amphioxus-Digestive, Circulatory, Reproduction Hemichordata: - Herdmania characters and morphology * Mutation - Gene mutation and types Chromosomal aberration (structural & numerical) Spontaneous & induced 	<ul style="list-style-type: none"> * Reproduction: Structure of gonads, Gametogenesis. Role of sex hormones in Reproduction. Reproductive cycles – oestrous and menstrual cycle * Vitamins: - Sources and deficiency 	<ul style="list-style-type: none"> * Fossils: Definition, fossil formation Types of fossils. * Applications of biotechnology Agriculture, Medicine, Industry



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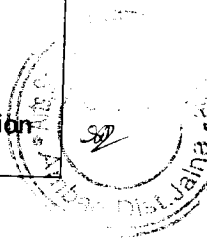
Month	Class: B. Sc. I	Class: B. Sc. II	Class: B. Sc. III
	Paper: VI	Paper: XIII and XIV	Paper: XXI and XXII
	Semester: II Practical	Semester: II Practical	Semester: II Practical
April	-Study of museum specimen & slides of relevant Invertebrates protochordata.	*Study the digestive enzymes from cockroach/Human Saliva. -Total count of RBC /WBC from given blood sample -Preparation of solutions -Study of analytical instrument principle and applications: pH meter, Colorimeter, Centrifuge Electrophoresis	*Embryological evidences of evolution with the help of slide/chart/pictures. -Adaptive modification in feet of birds and mouth parts of insects -Sterilization of glassware and chemicals in tissue culture -Preparation of culture media and sterilization
May	-Dissection of Prawn for Nervous system -Dissection of Cockroach for Digestive and Nervous Systems. -Dissection of Pila for Nervous system. -Dissection of Sea Star for Water Vascular System.	-Preparation of Hearnatin crystals from blood sample. -Hb% from given blood sample. -Factors affecting enzymes activity temperature and pH. -Detection of amino acid by paper chromatography	-Study of successive stages of evolution with the help of models/charts horse, human -Assay of cell viability using dye. -Effect of pH on acid phosphatase activity
Jun	-Mounting of any five of the following. Mouthparts of Cockroach, Mosquito, House fly, Bed bug and Honeybee. Salivary glands of cockroach. Redula of Pila, Pedicillaria of Star fish.	-Effect of isotonic, hypotonic, and hypertonic solutions on blood cell (RBCs) -Detection of nitrogenous waste product from the extract of different animals -Qualitative test for organic compound. Carbohydrate, Protein, Fats.	-Discussion on patterns of speciation with the help of charts /pictures. Allopatric, sympatric speciation. -Study the homologous and analogous organs.
Jul Aug	-Culture of Drosophila- experimental organism in genetics -Observation of common mutants of drosophila -Determination of human blood groups A, B, AB, and O, Rh factor	-Detection of nitrogenous waste product in fish/frog water tank. -Estimation of O ₂ consumed by fish - Typographic reading of skeletal muscle properties, heart beating in Toad / Rat. (Demo) -Quantitative estimation of protein from animal tissue using Lawry's method	-Study of natural selection using <i>E. coli</i> bacteria against antibiotics (Tetramycin/ Penicillin) -Study of chromosomal aberration -Pure Culture of airborne/water bacteria. -Study of antibiotic resistant /susceptibility of bacterial culture.
	-Major and minor problems in genetics	-Histological study of T.S. of Kidney, Testis, Ovaries, Pancreas, Intestine, Pituitary gland, Thyroid gland, Adrenal Gland, Islets of langarhance,	-Study of geographical era. -Demonstration of Animated methods of nuclear transplantation, hybridoma technique, DNA fingerprinting, Bt- cotton



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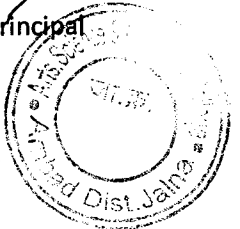
Annual Teaching Plan (Year: 2020-2021)

Month	Class: B.Sc F.Y	Class: B.Sc S.Y	Class: B.Sc T.Y
	Paper: Operating System Semester: II	Paper: programming in c++ Semester: IV	Paper: Data Communication and Networking Semester: VI
Apr-2021	<p>Introduction to Software: • Software: Definition, classification and components of software, operating system as the main component of system software; Operating System Fundamental • Operating Systems: OS as a resource manager</p>	<p>procedural vs object oriented programming. Basic concept of Object-Oriented Programming class.object,data Abstraction,Encapsulation,Inheritance,polymorphism,dynamic binding,message passing and application of oops,History and overview of c++,reference variable</p>	<p>Introduction:Communication System, Components of communication systems, Computer network Advantage and applications of computer n/w. point-to-point and multipoint line configuration, LAN, MAN and WAN. Analog and Digital signals, Data Transmission: Parallel and Serial, Synchronous and Asynchronous transmission, Transmission Mode: Simplex, half-duplex and full-duplex.</p>
May-2021	<p>OS, Evolution of OS, OS functions, Characteristics of modern OS.</p> <ul style="list-style-type: none"> • Types of O.S.: Early systems, simple batch systems, multiprogrammed batch systems, Time sharing system, Personal Computer systems, Parallel systems, Distributed systems, Real time systems • OS Structures: Components of OS: Process management, Memory management, Storage management, File management, I/O management. 	<p>scope resolution operator,member dereferencing operator ,new and delete cin and cout,endl and setw manipulator.function prototype,call by reference Declaring Functions Function Calls Type void for Functions,inline function,default argument,const argument. Function Overloading: Different numbers and different arguments</p>	<p>Network Topologies: Mesh, Star, Tree, Bus and Ring and Hybrid Topology (Advantages and disadvantages of each</p>
Jun-2021	<p>Process Management • Concept of Process: Process State, Operation on Processes, thread. • CPU Scheduling : Types of Schedulers, Criteria for scheduling, Scheduling Algorithms. • Process Synchronization: Need for</p>	<p>Object and Classes:Specifying a class,private and public,Defining a member function,nesting of member function,object as a data type,memory allocation of object,static data member and member function,Array of object,Object as a function arguments,returning object ,friend function and it characteristics.</p>	<p>Transmission media: Guided and unguided media, Twisted-pair, UTP and STP cable, coaxial cable, Optical Fiber cable, Radio waves, Microwaves, Satellite Communication (Transmission characteristics and advantages of each type) Modulation & Multiplexing: Concept of modulation and demodulation, Digital-to-analog conversion,</p>



	<p>synchronization, Critical Section, Hardware Synchronization, Semaphores, Monitors, Problem of synchronization. • Deadlocks: Concept of Deadlock, Deadlock Modeling, Methods for Handling Deadlock</p>	<p>Amplitude Shift Keying (ASK)/AM, Frequency Shift Keying (FSK)/FM, Phase Shift keying (PSK)/PM</p>	
<p>Jul -2021</p>	<p>Storage Management • Memory Management: Address Binding, Logical Vs. Physical Address space, Memory Allocation, Paging, Segmentation, Segmentation and paging of Intel Pentium. • Virtual Memory: Demand Paging, Page replacement Algorithms (FIFO, Optimal, LRU), Virtual Memory in windowsXp. • File System Interface: Files, File Access, Directory Structure, Protection • Implementation of File System: Allocation Methods, Free space Management . I/O System • I/O System Components : I/O Devices , I/O Hardware , Application I/O interface • Secondary Storage Structure : Disk fundamental, Disk Scheduling , Disk Management</p>	<p>Constructor and destructor: Introduction default and parameterized constructor,multiple constructor in class,copy constructor,Destructor. Operator Overloading:Overloading unary operator,Rules,Overloading with friend function and without friend function,Overloading with binary operator arithmetic and relational operators,concatenating string,comparison operator</p>	<p>The Mobile Telephone System: First Generation(1G), Second Generation(2G), Third Generation(3G), Internet over cable, Spectrum Allocation, cable Modem, ADSL Versus Cable.</p>

Mr. KOKRE D.K.

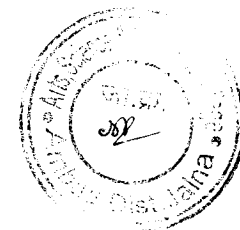
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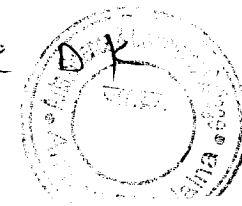
Department of Computer Science

Month	Class: B.Sc F.Y	Class: B.Sc S.Y	Class: B.Sc T.Y	
	Paper: Computer Fundamentals	Paper: Data structure	Paper: Web Designing	OR VB.NET
	Semester: I	Semester: III	Semester: V	Semester: V
Nov-2020	<p>Fundamentals of Computer System</p> <ul style="list-style-type: none"> • Introduction. • Characteristics & features of Computers. • Components of Computers. • Organization of Computer. Data Representation • Introduction to Number System Decimal Number System Binary Number System • Hexadecimal Number System • Conversion within Numbers Systems • Arithmetic Operation on Binary and Hexadecimal Numbers • Normalized Floating point Number • Representation of Character in Computers • Representation of Integer Numbers • Representation of Fraction Numbers • Hexadecimal Representation of Number 	<p>Introduction to data structure: Introduction, basic terminology: Data items, fields, records, files, entity, attributes, data organization and data structure.</p>	<p>Introducing HTML5 Understanding HTML, XHTML, and HTML5, Introducing semantic markup, Syntax, Attributes, Working with elements, Creating an HTML document Embedding content, Embedding HTML by using inline frames, Working with hyperlinks, Adding images to your HTML document, Embedding plug-in content</p> <p>Advances of HTML5 HTML5 Layout container Format using <div> element Working with Tables: creating regular and irregular tables, heading, columns and rows, captions, header, footer.</p>	<p>Introduction: Introduction to .NET and .NET Framework, Difference between CUI & GUI, Event Driven Programming, the VB IDE, Operators, Conditional statements and looping statements. Sub Procedure, functions and exception handling</p>
Dec-2020	<p>Algorithm and Flowcharts</p> <ul style="list-style-type: none"> • Algorithm Definition Characteristics Advantages and disadvantages Examples • Flowchart Definition Define symbols of flowchart Advantages and disadvantages Examples 	<p>Array: Representation of a linear array, Traversing, insertion, deletion, sorting and searching algorithm, multidimensional array 2D and 3D concept, Record and record structure, representation in memory.</p>	<p>Introducing JavaScript Basic of JavaScript JavaScript Variables, Operators & Its Precedence, Special Values, Predefined Built-In functions, Functions Declaration & Call String Functions Conditions and looping structure, Inline JavaScript & External JavaScript.</p>	<p>Windows Forms : General Properties, Events handling events like mouse, keyboard, Types of forms MDI, adding removing controls at run time.</p>



<p>Jan-2021</p>	<p>Computer Generation & Classification <ul style="list-style-type: none"> • Generation of Computers : First to Fifth • Classification of Computers • Distributed & Parallel computers . Computer Languages • Types of Programming Languages Machine Languages Assembly Languages High Level Languages • Assembler, Linker, Loader, Interpreter & Compiler Computer Memory • Memory Cell & Organization • Types of Memory (Primary And Secondary) RAM ROM PROM EPROM Secondary Storage Devices (FD, CD, HD, Pen drive, DVD, Tape Drive, DAT) </p>	<p>Linked List: concept of linked list representation of linked list in memory, Traversing of linked list, searching the linked list: sorted and unsorted, insertion and deletion in linked list, Header linked list & two way list.</p>	<p>Advances in JavaScript Object in JavaScript, Concept of array, how to use it in JavaScript, types of an array, array methods DOM Concept in JavaScript, DOM Objects, DOM Search Methods Event handling in JavaScript: Capturing & Bubbling, Subscribing, Unsubscribing and Cancelling Event, Windows Event, Keyboard and Mouse Events.</p>	<p>Controls : The control class, Text Box, Rich Text Box, Label, Buttons, Checkbox, Radio Button, Panels, Group Boxes, List Box, Combo Box, Picture Box, Scroll Bars, Splitters, Track Bars, Pickers, Timer.</p>
<p>Feb - 2021</p>	<p>I/O Devices • Input Devices : Touch screen , OMR, OBR , OCR, Light pen <ul style="list-style-type: none"> • Output Devices : Scanners, Digitizers, Plotters, LCD Plasma Display, Printers . Processor • Structure of Instruction • Description of Processor • Processor Features • RISC & CISC . Operating system Concepts • Why Operating System • Functions of Operating System • Types of Operating System Batch O.S. Multiprogramming O.S. Time Sharing O.S Personal Computers O.S. Network O.S. </p>	<p>Stack queue and recursion: stack, operation, Array representation of stack, linked representation of stack, arithmetic expression POLISH & POSTFIX ,application of stack: Quicksort and Recursion Queue: Representation of queue and link Types of queue: dequeue and priority queue.</p>	<p>Cascading Style Sheet Introduction to CSS3 Defining and Applying a Style, Inline, Embedded and External Style Sheet. Selectors: element, id and class selector, grouping selector, attribute, Specificity and cascading CSS properties: Color, box Model, border, padding, margin, float, clear</p>	<p>Object-Oriented Programming : Class and Object, Class Vs. Object Members, Creating Classes, Objects, Structures, Modules, Constructors, Data Members, Methods, Properties, Event</p>

Mr. KOKRE

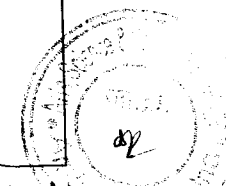


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Department of Computer Science

Month	Class: B.Sc F.Y	Class: B.Sc S.Y	Class: B.Sc T.Y
	Paper: Digital Electronics	Paper: Adv. C Programming	Paper: Software Engg
	Semester: I	Semester: III	Semester: V
Nov-2020	Number Systems and Arithmetic Decimal Number System & Binary Number System Binary Arithmetic : Binary addition, subtraction ,multipli- cation & division Hexadecimal	Structure & Union: Structure: Introduction, Declaration and initializing, Accessing structure members, Nested structures, Arrays of structure, Unions:	Introduction to SE SDLC, Requirement Analysis Software Design, Coding Testing, Maintenance. Software Requirement Specification
Dec-2020	number system, 1's complement, 2's complement method Boolean Algebra and Logic Gates Theorems of Boolean Algebra: Comp- lementation, commutative, AND, OR,	Declaration, Difference Structure & Union Pointers: Introduction, Memory organization Declaration and initi- alization, The pointer operator * &, Pointer expression and pointer	Waterfall Model, Prototyping Mdl, Iterative Enhancement Model, Spiral Mdl, Role of Management in Software, Development, Role of Metrics and Measurement
Jan-2021	Associative, Distributive, Absorption laws , De morgan's theorem Minimization Techniques K-Map, K-map for 2,3,4 variables Combinational and Arithmetic Logic	arithmetic, Pointer to an array, Pointer to pointer, Constant pointers. Functions & Pointers :Call by reference, Passing array and structure to function, functions	Problem Analysis, Requirement Specification, Validation, Metrics, Monitoring and Control System Design, Problem Partitioning, Abstraction Top down and bottom
Feb -2021	Circuits Half Adder & Full Adder Subtractor, multiplexer, demultiplexer Flip Flops : RS FF, Clocked RS FF, D FF Counters : Asynchronous/ripple counter. Shift Registers : Serial- in serial -out Serial-in parallel-out Parallel-in serial-out, parallel-in parallel-out	returning pointers, character pointer, Storage Classes & Preprocessor File Handling: Opening & closing a file text and binary files, getc(), putc() fprintf() and fscanf(). fread() and fwrite() Object Oriented Programming Intro, Proce vs OOPs, Basic Concept of OOPs, Beni & Applic	-up design, Structured Approach, Functional v/s Object-Oriented Approach, Design specification & verification, metrics, Monitoring & Control



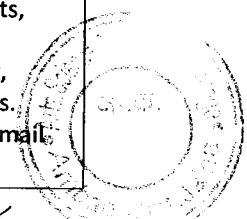
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Month	Class: B.Sc F.Y	Class: B.Sc S.Y	Class: B.Sc T.Y	
	Paper: Programming in C	Paper: DBMS Using Sql	Paper: Ethics and Cyber Law	OR E-Commerce
	Semester: II	Semester: IV	Semester: VI	Semester: VI
Apr-2021	<p>Introduction • An Overview of C , History of C language, • C as a Structured Language, Features of C. . Basic Elements & Operators • Character set, C Token, Identifier & Keywords, Variables • Constant and its types. Integer constant, floating point constant, character constant, string constants. • Operators: Arithmetic, Relational, Logical, Unary operators: Increment & decrement Assignment and Conditional operator. • Precedence & Associativity of Operators</p>	<p>Basic concept: Data definition ,types of data, Record and file,file based system and processing database application ,purpose of database system Abstraction and data ,integration of 3 level architecture proposal for dbms, Component of dbms: users,facilities and structure ,Advantages and disadvantages of dbms. Data modeling and design: Data association -entities, Attributes, association, Relationship among entities, Representation of association & Relationships.</p>	<p>Basic Concepts of Technology and Law, Understanding the Technology of Internet, Scope of Cyber Laws, Cyber Jurisprudence. Law of Digital Contracts The Essence of Digital Contracts.</p>	<p>Introduction, IT and business, E-commerce: Concepts Electronic Communication, PCs and Networking, E-mail, Internet and intranets. EDI to E-commerce, EDI, UN/EDIFACT</p>



<p>May-2021</p>	<p>Data Types • Data Types: int, char, float, double. Declaration & Initialization. • Type modifiers: long, short, signed and unsigned . C Program & I/O statements • Structure of C Program, Compilation & Execution of C program I/O: Introduction, Formatted Input/Output function: scanf & printf, Escape sequence characters. • Library functions: General used & Mathematical.</p>	<p>Data model :importance of data model, Types of data model: Relational,ER Model, semi structure ,object oriented, network and hierarchical model, The Advantages and Disadvantages of model. Entity relationship data model: Entity ,entity set, Types of entity, strong and weak entity, Representation attributes, Types of attributes, Representation relationship: binary and ternary Representation mapping cardinality, entity relationship design issue</p>	<p>The System of Digital Signatures. The Role and Function of Certifying Authorities. The Science of Cryptography</p>	<p>Concerns for E-commerce Growth, Internet bandwidth, Technical issues, Security issues. India E-commerce Readiness, Legal issues, Getting started.</p>
<p>Jun-2021</p>	<p>Control and Iterative Statements : • Simple if, nested if, if-else, else if ladder • Switch-case statement • The conditional expression (? : operator) • while and do-while loop, and for loop • break & continue statement, goto statement . Arrays: • Introduction, Declaration and initialization Accessing array elements, Memory representation of array. • One dimension and multidimensional arrays, character array, Introduction to string</p>	<p>Relational data model: Basic structure of relational data model ,database schema constraints: integrity rule 1 and 2 Normal form, anomalies, functional dependency, dependency diagram,1normal form,2normal form,3normal form, conversion from universal to 1NF,2NF,3NF AND 2NF,3NF</p>	<p>E-Governance, Cyber Crimes and Cyber Laws. Introduction to Intellectual Property.</p>	<p>Security Technologies: Encryption, Symmetric key Encryption, Public key encryption, Public key encryption using digital Signatures. Hashing techniques, Certification and key Distribution, Cryptographic.</p>
<p>Jul -2021</p>	<p>Functions • Introduction, types of functions. Defining functions, Arguments, Function prototype, actual parameters and formal parameters, Calling function, Returning function results, Call by value, Recursion.</p>	<p>Relational algebra: basic operation : union, intersection, difference and Cartesian product advance operation-projection, selection, join(inner and outer) division example based on above operation .relational algebraic queries. Introduction to oracle: Oracle software :version of oracle, products of oracle, tools of oracle, SQL: Logging of sql/Isql, SQL plus worksheet.</p>	<p>Information Technology Act 2000 Cyber Law Issues in E-Business Management. Major issues in Cyber Evidence Management, Cyber Law Compliancy Audit, The Ethics of Computer Security. Relevant Rules Notifications, Information Technology (Amendment) Act, 2008.</p>	<p>The elements of E-commerce. SSL-Secure Socket Layer, SET-Secure Electronic Transaction Protocol for Credit card payment, E-Cash, E-check, Smart cards. Electronic Payment System: Digital Cash, Digital Wallets, Digital checking payment systems, Electronic Billing, Wireless payment systems. Software Package: PGP e-mail encryption software</p>

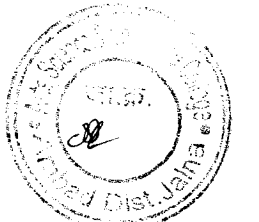


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Month	Class: B.A Fy Paper: IV Semester: II	Class: B.A Sy Paper: VII (OP) Semester: IV	Class: B.A Ty Paper: VII Semester: VI	Class: B.A Ty मुख्य Paper: XV Semester: VI
Apr-2021	मुद्रित मध्यभासावी लेखन कोशलेख्य - महत्व - उपयोगिता * व-वपत्राचे स्वरूप व महत्व गालमी लेखन * प्रकार * वाचनी शैली	आधुनिक मराठी वाड:मयचा इतिहास पार्श्वभूमी प्रस्तावना - टांक-०१ नाट्य - वाड:मय स्वरूप मराठी रंगभूमी उदय अण्णासाहेब १क लेखक १९१५-१९२० नाट्य वाड:मय	पश्चात्य साहित्यशास्त्र माहिती अर्थसास- कम - टांक १- साहित्य-चे स्वरूप, लक्षणे - चर्चा	पांडित्य साहित्य परना - स्वरूप - वैशिष्ट्ये पार्श्वभूमी माहिती
May-2021	* स्तंभ लेखन * मुलाखल घ्यावे काय ? मुलाखल प्रकार संवाद लेखन -	टांक - ०२ काव्य काडामय व्याख्यानरित कविता केशवसुत - व समकालीन कवी -	टांक ०२ साहित्यचे प्रयोजने - पलायनवादि - कथासिंघ - आत्मा विस्कार - जिज्ञासा	मु. वलेश्वर वामन पांडे, शुभाच पांडे सामराज अधिप मोरोपंत शास्त्री परना, स्वरूप व वैशिष्ट्ये
Jun-2021	अभिलेख स्वरूप व महत्व समीक्षात्मक लेखन, * जाहिरात लेखन	टांक क. ०३ चरित्र आत्मचरित्र स्वरूप - विशेष १९००-१९२० चरित्र - वाड:मय	टांक ०३ - साहित्यी निर्मिती प्रक्रीया फाईड, युग, प्रिंकार कोकारिज, एलियट	परसराम, रामजोशी परसराम होनाजीबा डिंगलकेदी, श्रमणभा. प्रभाकर यांच्या वाड:मय परिचय व स्वरूप वाड:मय -
Jul-2021	प्रकार - वाचकोची पत्रे निविदा तयार करणे समावेश्य सशय परीक्षा	टांक कमांक ०४ - गावसवाही साहित्य विचार समाजवादी वास्तववादी वाचककी संकल्पना परीत्मतया संकल्पना	टांक ०४ मावसीधि साहित्य विचार समाजवादी वास्तववादी वाचककी संकल्पना - सशय परीक्षा	शिवपुवकाजीबखरी शिवकाजीबखरी पेशवेकाजीबखरी परिचय - सशय सशय परीक्षा

(Signature)
 डॉ. एस.एस. प्रधान
 (मराठी विभाग)



Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of ... (Marathi).....

Month	Class: B.A.F.Y Paper: II (OP+) Semester: I	Class: B.A.S.Y Paper: V (OP) Semester: III	Class: B.A.T.Y Paper: IX (OP) Semester: V	Class: B.A.T.Y मुर्या Paper: XI (OP) Semester: V
Nov-2020	अभ्यासकृमाची माहिती नाट्य वाङ्मयाचे - स्वरूप	अभ्यासकृमाची माहिती आधुनिक मराठी वाङ्मयाचा इतिहास (१८००-१९२०)	अभ्यासकृमाची माहिती भारतीय साहित्यशास्त्र * साहित्याचे स्वरूप साहित्याची व्याख्या संस्कृती साहित्य-इति	भाषा-साहित्य साहित्येतिहास यांचा आढावा मध्ययुगीन मराठी वाङ्मयाचा इतिहास
Dec-2020	साहित्यसंहिता - नाट्यप्रकार, * फाटलेला पतंग - दिवाकर कृष्ण * चिंती महिन्याची आजीनाही लोच - दिवाकर कृष्ण	संस्कृती इतिहासाची संकल्पना स्वरूप साहित्य संस्कृती अंतः संबंध, दार्मिक प्रबोधनाचा वळवळी, निबंध -	प्रस्तावना घटक १- साहित्याचे स्वरूप, व्याख्या लक्षण घटक २- साहित्याचे प्रयोजने मम्मटाचे प्रयोजन - आभट्ट दंडी - भरतमुनी	प्रारंभकाळ ते १९६० मराठीचा प्रारंभक क मुकुंदराज महानुभाष पंथ आणि वाङ्मयकार महानुभाष पंथाचे लेखन
Jan-2021	उपरे - रा. शं. बोशडे, आशय, पात्र - संवाद कौशल्य, वैशिष्ट्य मुकामी झाकी हो, ज्योती ग्हापरे कर - आशय संवाद	नियतकालिकांचे उद्देश्य, कथा वाङ्मयाचे स्वरूप - वी.सी. मुर्जर यांच्या कथा स्वरूप कथाविशेष -	साहित्यनिर्मिती प्रक्रिया प्रतिभा व्युत्पन्नता अभ्यास व इतर पूरक कारणे	महात्मक पद्यात्मक साहित्य वाङ्मयी संप्रदाय कवी पंचक जनाबाई चोरामेळा सावनभाळी, निसेवाखेपर, गरहरी सोनार, गोरकुमार
Feb-2021	यातना उत्सव - वापू घोडे-लेखक परिचय - पात्र आशय, संवाद कौशल्य भाषाशैली - लेखन कौशल्य -	घटक ४. कादंबरी वाङ्मयाचे स्वरूप विशेष १९५७-१९८५- १९८५-१९२०चा काळातील कादंबरी	इसाविचार - भट्टोजी श्रीशंकर - गुट्टनाक अभिनेतृभूते यांच्या मतांचा विचार शब्दशक्ति अर्थविचार	संत शिवायचा पंथ संत लकाराभाषाभाषा शाहरी वाङ्मया पेशा व दोशेष्ट्ये पेशेकाली वखरी यांच्या विचार शिवपूर्व काळीन वखरी



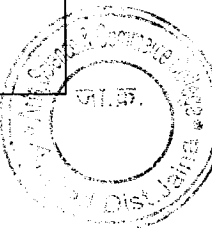
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Marathi

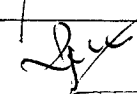
Department of ... Marathi

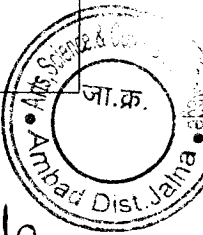
Month	Class: B A F Y.	Class: B A F Y	Class: B A T Y	B. Com S Y
	Paper: I (S.L)	Paper: I (opt)	Paper: V	II
	Semester: I	Semester: III	Semester: V	III
Nov-2020	<p>वी. ए. ए. ए. - मराठी अद्य-पद्य डा. गंगासकृमाजी भास्कर (S.L.) जी. ए. ए. ए. मराठी लेखन काव्यसम सारित जी. कॉम. S.Y.</p>	<p>काव्यात्म साहित्य 1) केशवसुत - कोणीकडून कोणाकडे - सुनिर्मलान- तुलारी</p>	<p>भाषेचे स्वरूप न भोवणी विविध व्याख्या भाषेबाबत-समज मैर समज</p>	<p>भाषा म्हणजे काय? 2) वाचन संस्कृती</p>
Dec-2020	<p>डा. गंगासकृमाजी सुकृष्ण गद्य-पद्य उपयोजित 1) सारिक व क्षण 2) अर्जदस्त.</p>	<p>2) वाही भावाई चौधरी 3) उवाच नारायण 4) कुसुमाभूषण.</p>	<p>2) स्वप्न - स्वप्नविचार 3) निमित्तिय किता 4) व र्गीकरण</p>	<p>2) वाणिज्य व्यापार आणि पुत्र लेखन 4) जागतिकीकरण व मराठी भाषा</p>
Jan-2021	<p>उपयोजित मराठी 3) कुशुपुष्प भूमिवरी तु 4) आनंदे वीरिका 5) पूर्व भाषादिशा</p>	<p>5) स्वर्णाची समाप्ती 6) सतीशका शिवसुंदर 7) देवा दिवस</p>	<p>5) स्वपिप विचार 6) पदविचार 7) स्वपिचार</p>	<p>5) वाणिज्य व्यवहार भाषा मराठी भाषा</p>
Feb-2021	<p>6) पाडस देवा, यालिभेद 8) तुम्ही सदाचराने वागा 9) ऐसे कोक्या गोपाळ 10) जाऊ आमची सुन 11) उपयोजित मराठी विद्यापीठ परीक्षा</p>	<p>8) आश्रम कोळहरकर 9) नामदेव हरसाक 10) विद्यापीठीय परीक्षा</p>	<p>8) प्रमाणभाषा व बोलीभाषा</p>	<p>परीक्षा</p>



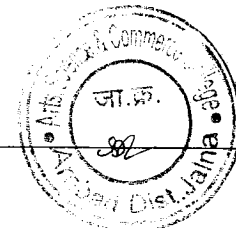
Matsyodari Shikshan Sanstha's
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Month	Class: BAFY	Class: BAFY	Class: BAFY B. Com. Sy	
	Paper: II (S.L)	Paper: II (OPT)	Paper: XI III	
	Semester: II	Semester: IV	Semester: VI	
Apr-2021	1) शेवटचे कीर्तन 2) कुळवीण 3) देशाचे अविच्छेद	1) सख्या पावसाळ्यातील शेत 2) भूमिका 3) नदिकांतीच्या प्रकार	शब्दांच्या जागी संधी विचार कार्यालयीन लेखनात अनुवादित व स्वल्प	
May-2021	शाही, लोणशाहीच्या भाषा जाहिरात स्वल्प	4) गोष्टीनी - 2001 5) शापो भाग सात जमाना 6) हिशोब	विसरसिंधी समास हुं हुं समस वाणिज्य व्यवसाय माध्यम व्यापाराचा मंद कराशी साधने	
Jun-2021	एरोप वाक्य - सामाजिक शुक्र - डिवाणी	7) तीन पावस. दंग 8) कोशी, अचोली	अथोत्तर चोलाशुभोक्ती स्वभोक्ती	वाणिज्य व्यवहाराची साध्य श्रुत साधने निबंध लेखन
Jul-2021	बिरसाभुडा, जाप	कथा स्वल्प व वैशिष्ट्ये	शब्दांकार निबंध पाठ्यपुस्तकातील	निबंध लेखन - चर्चा


 मराठी विभाग
 D. B. Rakhunde

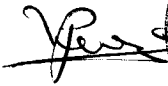


Month	Class: एम.ए. प्रथमवर्ष मराठी	Class: एम.ए. द्वितीय वर्ष	Class:
	Paper: I	Paper: II	Paper:
	Semester: I	Semester: III	Semester: V
Nov-2020	आधुनिक मराठी साहित्याचा इतिहास (1920 ते 1960) साप्ताहिक प्रारंभ	वर्णनात्मक ग्राह्यविज्ञान स्वभावविचार, स्वभावाचे प्रकार	
Dec-2020	कादंबरी साहित्याचा प्रारंभ कादंबरी स्वातंत्र्यपूर्व कादंबरी स्वातंत्र्यनंतर कादंबरी	रूपनिर्मित विचार स्वनिर्मित प्रकार	
Jan-2021	कथा साहित्याचा प्रारंभ कथांचे प्रकार 1960 नंतरची कथा	परिचित विचार वाक्यविचार	
Feb-2021	निबंध साहित्याचा प्रारंभ स्वातंत्र्यनंतर काळखंडातील निबंध साहित्याचा प्रारंभ	अर्थ विचार अर्थाचे प्रकार अर्थाचे स्वरूप	



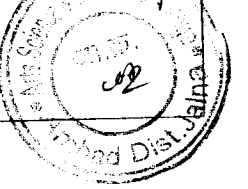
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Arts, Science & Commerce College, Ambad Dist. Jalna
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Month	Class: एम. ए. मराठी प्रथमवर्ष	Class: एम. ए. मराठी द्वितीयवर्ष	Class:
	Paper: II	Paper: III	Paper:
	Semester: II	Semester: IV	Semester: VI
Apr-2021	आधुनिक मराठी वाङ्मयचा इतिहास - (1960 ते 2000) काव्य वाङ्मय 1960 नंतरची कविता	मराठी भाषेचा इतिहास शिक्षकांमार्फत मराठी पेशवे काळीन मराठी आधुनिक मराठी	
May-2021	गोरेवाङ्मय 1960 नंतरचे नाटक आणि नाटककार 1960 नंतरच्या नाटकांचे विश्लेषण.	प्रमाणशाखा व बोलीशाखा प्रमाणशाखा आणि बोली-फरक बोलीभाषेचे निश्चेष.	
Jun-2021	प्रवासवर्णीनी कथावाङ्मय 1960 नंतरच्या कथा	मराठी भाषेवर स्नातके इतर भाषेचे स्नातके परिचय इंग्रजी, कानडी, फारसी, अरबी	
Jul-2021	कादंबरी वाङ्मय 1960 नंतरच्या कादंबरी वाङ्मयाचे स्वरूप व विशेष	मराठी भाषेतील महत्त्वाचे साहित्य - शिळातेज	

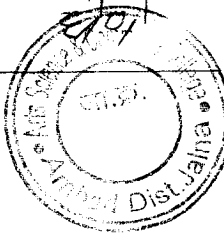

 Arts, Science & Commerce
 Ambad Dist. Jalna
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-या-वर्षा-तः
(मराठी-विभाग)

Month	Class: B.com P.Y. (SL) Paper: I Semester: I	Class: BA/B.Sc 51-52 Paper: III Semester: III	Class: B.A. 54 Paper: IV Semester: III	Class: B.A.T.Y Paper: VII Sem: II
Oct-2020	प्रवेश प्रक्रिया	प्रवेश प्रक्रिया	प्रवेश प्रक्रिया	
Nov-2020	गद्य-यद्य उपयोजित गद्य-9 साप्ताहिक रक्षण 2 अर्जदरेत अपयोजित लेखन	गद्य-9 द्यत्रापती शिवाजी म... 2- लोकसंस्कृती पद्य- 4 निष्कर्ष 2-मरणान उपसाधना...	9 नवोवाणी -स्वरूप कार्य -छात्रक -विविध छात्रकांचा पत्रिचय	मकल्पकार्य भाषा, साहित्य व इतिहास-प्रश्नावली
Dec-2020	पद्य-9 शुद्धीआतीत्य रान 2 कुशवकश्रुमीवरी... 3 आनंद के गोविथा 4 भासा वाद्योनि मराठी... 5 पूर्वभाष्य दिशा	2- लोकनेते पयारसाहेब 3- साय्य छात्राचार... 4- कुणबी भासा 5- कीदसा 6 अर्जद हादापुन	2- द्यत्रिवाणी -स्वरूप कार्य -लेखनगिर्भित्ती -कार्यक्रमांचे प्रकार	भाषाविज्ञान छात्रकांचे आकलन
Jan-2021	8- पाउसदेवा 9 थात्तिवद... 10 रेश केले था... 11 मन करा रे प्रसव 12 तुत्रया प्रीतीचे	6 वही उपयोजित-पुस्तक परिचय नायगियोजन	2- साहित्यविषय परिचय संकायना व स्वरूप	मकल्पविषय- लेखन-मार्गदर्शन
Feb-2021	गद्य 2- राजाजी कर्मव्यो 3- जिजाऊ 4- तुम्ही सहाचरणाने... 5 परमेश्वराचे शक्तिव्य उपयोजित लेखन	परिश्रमा... आकाशवाणी...	-साहित्यविषयक छात्राभांडी -3- (उद्योगिकी) -चित्रकोष	भाषाशिक्षणाचे साहित्य विषयक लेखन-मार्गदर्शन



Month	Class: B. Com FY- SL Paper: II Semester: II	Class: BA/BSC 3Y- SL Paper: III Semester: IV	Class: B.A. 4Y Paper: - VIII Semester: VI	CLASS- BA-4Y PAPER - VIII SEM - VI
Apr-2021	१. शिवरत्न कार्त्तिक (ग्रंथ) २. देशाचे भविष्य (ग्रंथ) ३. लोकशाही - आजशाही (ग्रंथ) ४. कुर्क विद्या ५. विद्यादास ६. अक्षय्याष्टमी	१ चिपाड - कंधासा केदार (ग्रंथ) २ मिर्गीपेर - विजय नाथ (ग्रंथ) १- गंधाधारात असतां - अ.मो. जोशी (ग्रंथ) २ आका - शिवाजी पाटील (ग्रंथ)	* संकल्पना व स्वरूप - प्रकारात भेद काय? - ज्या स्वरूपाची लिपि - प्रकारानुसार लिखिता कारणाची आवश्यकता	प्रकल्पकार्य शाही-साहित्य इतिहास पाठ्य
May-2021	४ आर्द्र ५ गिरीवा ६ मल्हापुरापुर (ग्रंथ) ७ बिरसाभु ३ ४ कोवळ मरणा (ग्रंथ) ५. ठोरागी ६. शुक	३ काठुर - अजयकी श्यामल (ग्रंथ) ४ गायदान - एकनाथ खिलकार (ग्रंथ) ३ पाचराच्या मुमुक्षुतान - दुधाळ (ग्रंथ) ४ जागल्य - शिवाजी भवगीळ (ग्रंथ)	* साधना संकल्पना: प्रकार - साधना व साहित्याचा संबंध - मुद्रित, आज्य व मुद्र-साधना - साधनासाठी साहित्याची आवश्यकता	साधना शिक्षण कायदा साधना शिक्षण साधना शिक्षण
Jun-2021	८ गुणवत्तेचा निकष ९ ज्योतिष मंडी (ग्रंथ) १०- वाप ११ कथे असतां प्रेम	१ शुक - उमेश मोहिते (ग्रंथ) ४ कोकशुकी व धुली - भावती ठोकर (ग्रंथ) १ हिरी व सुकनाकर - विश्व. वराट (ग्रंथ)	* साधनासाठी लिखित - मुद्रित साधनासाठी लिखित - आज्य साधनासाठी लिखित - एक-अक्षर साधनासाठी लिखित - साधना लिखित व लिखित * साहित्याचे साधनात	प्रकल्पविषय लिखित साधना प्रकल्पकार्य तपासून घ्या
Jul-2021	उपरोक्त लिखित - दीपवाच्य - साधना लिखित - साधना लिखित - साधना लिखित	- उपरोक्त साधना प्रत्येक व उपयुक्तता - साधना साधना साधना - साधना साधना साधना - साधना साधना साधना - साधना साधना साधना	- साधना साधना साधना - साधना साधना साधना - साधना साधना साधना - साधना साधना साधना - साधना साधना साधना	प्रकल्पकार्य साधना साधना साधना साधना



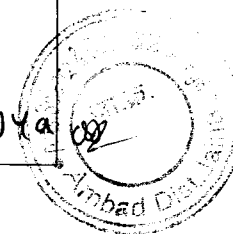
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

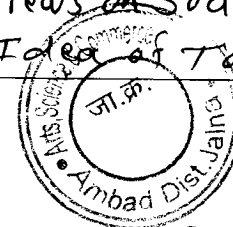
Department of ...Political science

Paithane R.D.

Month	Class: F.Y.B.A. P-II Paper: Government & Politics in Maharashtra. Semester: I	Class: S.Y.B.A. P.VI Paper: International Relations Semester: III	Class: T.Y.B.A. P-IX Paper: Indian Political Thought Semester: V
Nov-2020	1) Santyukt Maharashtra Movement. 1.1 - State Reorganization	1) International Relations 1.1 - Meaning 1.2 - Nature 1.3 - Scope & Significance 1.4 - Imp.	1) Rajaram Mohanroy 1.1 - Architect of Indian Renaissance 1.2 - Views on Religion 1.3 - Social & Political ideas
Dec-2020	1.2 - Ideological Basis of Movement. 2) Organization of Government 2.1 - Executive Governor & Chief Minister	2) Approaches to the Study 2.1 - Idealist approach 2.2 - Realist Approach 2.3 - Behavioral approach 3) Indian Foreign Policy 3.1 - Principles	2) Dayanand Saraswati 2.1 - Religion & Social Thought 2.2 - Political Thought 3) Gopal Krishna Gokhale 3.1 - Social & Liberal ideas 3.2 - Nationalist thought
Jan-2021	2.2 - Legislature :- Composition, Power and Function 2.3 - Judiciary :- High Court - Structure and Powers	3.2 - objects 4) National Interest and National Power 4.1 - Meaning 4.2 - Determinants	4) Lokmanya Tilak - 4.1 - Views on Nationalism 4.2 - Political Ideas - Four Point Programme 4.3 - Views on social Reform
Feb-2021	3) Movement in Maharashtra 3.1 - Cooperative movement 3.2 - Peasant Movement 3.3 - Dalit Movement 3.4 - Feminist movement	5) Balance of power 5.1 - Meaning 5.2 - Techniques 5.3 - Types & Relevance	5) M.K. Gandhi - 5.1 - Views on Religion 5.2 - Satya, Ahimsa and Satyagraha. 5.3 - Concept of Ram Rajya



Month	Class: F.Y.B.A. P- IV Paper: Gov. & Pol. in Maharashtra Semester: II	Class: S.Y.B.A. P- VIII Paper: International Relations Semester: IV	Class: T.Y.B.A. P- XIII Paper: Indian Political Thought Semester: VI
Apr-2021	1) Panchayat Raj System - Introduction 1.1 - Gram Panchayat - Composition & Functions	1) Collective Security and UN. 1.1 - Meaning & Nature 1.2 - UN & Collective Security 2) Deterrence 2.1 - Meaning & Nature	1) <u>Maulana Azad</u> 1.1 - Views on Religion & Politics 1.2 - Views on Hindu-Muslim Unity 1.3 - Idea of Nationalism
May-2021	1.2 - Panchayat Samiti - Composition and Functions 1.3 - Zilla Parishad Introduction	2.2 - Features and Types 3) Major Issues in Internationalism 3.1 - Terrorism 3.2 - Environmentalism	2) <u>Jawaharlal Nehru</u> 2.1 - Views on Nationalism, Democracy and Socialism 2.2 - Idea of Secularism 2.3 - Views on Internationalism
Jun-2021	1.3 a - Composition b - Power c - Functions 3) Ideology of Political Parties 2.1 - Shivsena	4) International & Regional Organizations 4.1 - IMP, World Bank, WTO 4.2 - SAARC 4.3 - ASEAN	3) <u>M.N. Roy</u> 3.1 - Critique of Marxism 3.2 - Radical Humanism or New 3.3 - Radical Democracy 4) <u>Dr. B.R. Ambedkar</u> 4.1 - Views on Religion & Society
Jul-2021	2.2 - All India National Congress 2.3 - BJP 3.2 - RPI 3.5 - NCP 3.6 - CPI, CPIM.	5) Non-alignment Movement 5.1 - Meaning, nature & Imp. 5.2 - Role of Non-alignment 5.3 - Relevance of Non-alignment	4.2 - Idea of Democracy 4.3 - Economic Thought 5) <u>J.P. Narayan</u> 5.1 - Views on Socialism & Democracy 5.2 - Idea of Total Revolution



Paithane A. D.

Paithane R.D.

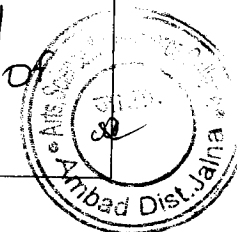
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Arts, Science & Commerce College, Ambad Dist. Jalna
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Month	Class: F.P.B.A.	Class: S.P.B.A.	Class: T.P.B.A.
	Paper: III we Basic Concepts in Pol-Sci	Paper: VII VI Indian Government & Politics	Paper: IV Western Political Thinkers
	Semester: II	Semester: IV	Semester: VI
Apr-2021	<u>Liberty, Equality and Justice</u> 1. Meaning and Definition 2. Types of Liberty, Equality and Justice	<u>Supreme Court</u> Structure, Powers and Functions Powers of Judicial Review	<u>Jean Jacques Rousseau</u> Human Nature Social Contract Theory Idea of General Will
May-2021	<u>Right</u> Meaning and Nature Types of Rights.	<u>Centre-state Relations:</u> Legislative Administrative Financial	<u>John Stuart Mill</u> Utilitarianism Idea of Liberty Representative Government
Jun-2021	<u>Democracy</u> Meaning and Features Direct and Indirect Democracy Merits and Demerits of Democracy	<u>Ideology and Program of Political Parties in India</u> Features of Party System in India All India National Congress Party BSP, Communist Party	<u>Jeremy Bentham</u> Views on State, Government and Rights. Ideas on Law and Reform and Punishment 3.3 theory of Utilitarianism
Jul-2021	<u>Welfare State:</u> Meaning and Features Obligatory and optional functions.	<u>Election Commission and Electoral Reforms</u> Composition, Power, Function, Role and Importance Electoral Reforms in India.	<u>Karl Marx</u> Dialectical Materialism & Materialistic Interpretation of History Theory of Class Struggle, Surplus Value Views on State and Revolution.

APL
 INALE A.O.V.
 Dept of Pol-Sci



Month	Class: F.P.B.A.	Class: S.P.B.A.	Class: T.P.B.A.
	Paper: I st Basic Concept in Pol-Sci Semester: I	Paper: II Indian Government & Politics Semester: III	Paper: X Western Political Thinker Semester: V
Nov-2020	<p><u>State:</u> -</p> <p>1.1- Meaning and Nature</p> <p>1.2 Elements of state</p> <p>1.3- Theories of origin of state: Divine Theory, social contract Theory, Evolutionary Theory</p>	<p><u>1) Indian Constitution:</u></p> <p>1.1 Sources</p> <p>1.2 Preamble</p> <p>1.3 features</p>	<p><u>1) Plato:</u></p> <p>Views on: Justice, Communism, Education, Ideal state.</p>
Dec-2020	<p><u>Government:</u></p> <p>2.1- Meaning and Definition</p> <p>2.2- Organs of Government: Legislature Executive and Judiciary</p> <p>Types of Government: unitary federal Parliamentary, presidential</p>	<p><u>2) Constitutional Provision</u></p> <p>2.1- Fundamental Rights</p> <p>2.2- Directive principles of state policy</p>	<p><u>2) Aristotle</u></p> <p>Views on: state, Citizenship Revolution.</p> <p><u>3) Niccolo Machiavelli</u></p> <p>HUMAN NATURE, Advice to Prince, views on 'Religion and Morality'</p>
Jan-2021	<p><u>3) Sovereignty:</u></p> <p>3.1- Meaning, Definition and Types</p> <p>Austin's theory of sovereignty</p> <p>Phulstic: Theory of sovereignty</p>	<p><u>3) Union Government:</u></p> <p>3.1- President</p> <p>3.2- Parliament</p> <p>3.3- Prime Minister</p>	<p><u>4) Thomas Hobbes</u></p> <p>HUMAN NATURE, Social Contract Theory and concept of Sovereignty</p>
Feb-2021	<p><u>4) Citizenship, Rights:</u></p> <p>CITIZENSHIP meaning types and Acquisition</p> <p>Meaning: Definition and Types of Rights and Duties.</p>	<p><u>4) Budgetary Process and Parliamentary Committee:</u></p> <p>4.1- Budgetary Process</p> <p>4.2. Public Accounts Committee</p> <p>4.3 Estimate committee</p>	<p><u>5) John Locke</u></p> <p>HUMAN NATURE, social contract theory, Idea of Rights.</p>



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Name of Teacher Dr.S.N.Sinkar

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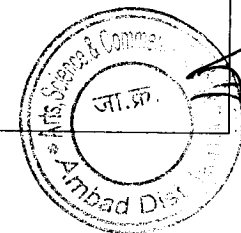
Department of Chemistry

Month	Class: B.Sc.F.Y	Class: B.Sc.S.Y.	Class: B.Sc.T.Y.
	Paper:II	Paper: IV	Paper: XIII
	Semester:I	Semester: III	Semester: V
Nov- 2020		<p>1) Thermodynamics: I Definition: of Thermodynamic Terms: System, Surrounding types of system, intensive and extensive properties. Thermodynamic Process, Concept of heat and work. Work done in reversible and irreversible process, concept of maximum work (W_{max}), Numerical Problems. First law of Thermodynamics: Statement, Definition of Internal energy and Enthalpy.</p>	<p>I Elementary Quantum Mechanics Black body radiation, Planck's radiation law, photoelectric effect, Bohr's modes of hydrogen atom and its defects. Compton effect. DeBroglie Hypothesis, the Heisenberg's uncertainty principles, Hamiltonian operator, Schrödinger wave equation and its importance, physical interpretation of the wave function, postulates of quantum mechanics. Schrödinger wave equation for H-atom, separation into three equations quantum numbers and their importance</p>
Dec-2020	<p>I. Structure and Bonding: Localized and delocalized chemical bond; charge transfer complexes, resonance, hyperconjugation, inductive effect, hydrogen bonding, conjugative effect, steric effect. II Mechanism of Organic Reactions: Homolytic and heterolytic bond breaking. Types of reagents electrophiles and nucleophile. Types of organic reactions. Energy considerations. Reactive intermediates - carbocations, carbanions, free radicals.</p>	<p>Heat capacity, heat capacities at constant volume pressure and their relationship. Calculation of W, q, du and dH for the expansion of ideal gases under isothermal and adiabatic conditions for reversible process, Numerical problems, Hess's law of heat summation and its application 2) Thermodynamic-II: Second Law of Thermodynamics: Need for the law, different statement of the law Carnot Cycle and its efficiency, Numerical Problems.</p>	<p>II Spectroscopy Introduction - Electromagnetic radiation, regions of the spectrum, basic features of different spectrometers, statement of the Born Oppenheimer approximation. Rotational Spectrum - Diatomic molecules, energy levels of a rigid rotor (semi classical principles), selection rule, rotational spectra of rigid diatomic molecule, determination of bond length, numerical problems.</p>
Jan-2021	<p>III Stereochemistry of Organic Compounds</p> <ul style="list-style-type: none"> • Concept of Isomerism - Types of isomerism • Optical Isomerism - elements of symmetry, molecular chirality, enantiomers, stereogenic centre, optical activity, properties of enantiomers, chiral and achiral molecules with two stereogenic centres, diastereomers, three 	<p>Carnot Theorem. Concept of Entropy: Definition, Physical significance, Entropy as a State Function, Entropy change in Physical change, Entropy as criteria of Spontaneity & Equilibrium Entropy Change in Ideal Gases. Gibbs and Helmholtz Functions: Gibbs Function (G) and</p>	<p>III Photochemistry Introduction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry, Grothus - Drapper law, Stark-Einstein law, Jablonski diagram qualitative description of fluorescence,</p>

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 Dr. Sinkar S.N.

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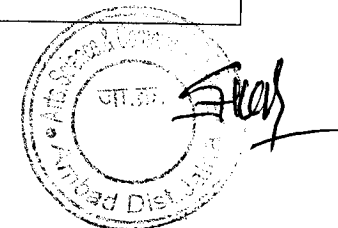
	<p>configuration, sequencerules, D and Land K andS systems of nomenclature. • Geometric Isomerism - Determination of configuration of geometric isomers. E and Z system of nomenclature, geometric isomerism in oximes and alicyclic compounds.</p>	<p>Thermodynamic Equilibrium and Spontaneity, their Advantage over Entropy change. Variation A with P, V and T.</p>	<p>crossing), quantum yield, photosensitized reactions.</p>
Feb - 2021	<p>IV Alkanes : Methods of formation (Koble reaction, Corey - House reaction and decarboxylation of carboxylic acids) Physical properties and Chemical reactions of alkanes Chlorination, Nitration, Sulphonation, Catalytic oxidation.</p> <p>V Alkenes : Nomenclature of alkenes, methods of formation, mechanisms of dehydration of alcohols and dehydrohalogenation of alkyl halides. The Saytzeff rule, Hofmann elimination, physical properties and relative stabilities of alkenes. Chemical reactions of alkenes - mechanisms involved in hydrogenation, electrophilic and free radical additions, Markownikoff's rule, hydroboration and oxidation with KMnO₄. Polymerization of alkenes</p>	<p>a3) Chemical Equilibrium: Equilibrium Constant and Free Energy. Thermodynamic Derivation of Law of Mass Action. Le Chatelier's Principle. Reaction Isotherm and Reaction Isochore. Clapeyron Equation, Clausius-Clapeyron Equation and its Application.</p>	<p>IV Physical properties and molecular structure Optical activity and its measurement, dipole moment and its measurement by temperature change method, magnetic property and its measurement by Guoy balance method, Applications of optical activity, dipole moment and magnetic property for determination of structure of molecule.</p>
	<p>VI Arenes and Aromaticity: Nomenclature of benzene derivatives. The aryl group. Aromatic nucleus and side chain structure of benzene : molecular formula and Kekule structure. Resonance Structure, MO Picture. Aromaticity : The Huckel rule, aromatic ions Aromatic electrophilic substitution: General Pattern of the mechanism (Nitration, halogenations and Sulphonation) and Friedel Crafts reaction.</p> <p>VII Alkyl and Aryl halides: Polyhalogen Compounds: Chloroform, Carbon tetrachloride. Methods -formation of aryl halides, nuclear and side chain reaction</p>		<p>V Nano Material Introduction to nano-materials Methods of Synthesis - i) High energy ball milling, ii) Physical vapour deposition (PVD) iii) Chemical vapour deposition (CVD) iv) Micro emulsion. Synthesis using micro-organisms and plant extract.</p>



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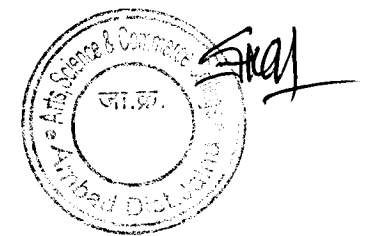
Month	Class: B.Sc.F.Y.	Class: B.Sc.S.Y.	Class: B.Sc.T.Y.
	Paper: IV	Paper: VIII	Paper: XVII
	Semester: II	Semester: IV	Semester: VI
Apr 2021		<p>1) Phase Equilibrium: Statement and Meaning of the Terms: <i>Phase, Component, Degree of Freedom, Derivation of Phase Rule Equation. Phase Equilibria of the One Component System: Water System. Phase Equilibria of Two Components System: Solid-Liquid Equilibria, Simple Eutectic Pb-Ag. System Desilverisation of Lead.</i></p>	<p>1. Heterocyclic Compounds Introduction: Molecular orbital picture and aromatic characteristics of pyrrole, furan, thiophene and pyridine, Methods of synthesis and chemical reactions with particular emphasis on the mechanism of electrophilic substitution. Mechanism of nucleophilic substitution reactions in pyridine. Comparison of basicity of pyridine, piperidine and pyrrole. Condensed Heterocycles: Introduction, Preparation of Quinoline (Skraups Synthesis), Isoquinoline (Bischler Napirlaski) and Indole (Fischer indole Synthesis).</p>
May- 2021	<p>I Mathematical Concepts : Logarithmic relations, curve sketching, linear graphs and calculation of slopes, differentiation of functions like kx^e, x^n, $\sin x$, $\log x$; maxima and minima, partial differentiation.</p>	<p>Solid Solutions: Compound Formation with congruent Melting Point (Mg-Zn) and Incongruent Melting Point (FeCl₃-H₂O) System. Freezing Mixture, Acetone-Dry Ice. Liquid-Liquid Mixture: Raoult's Law and Henry's Law. Ideal and Non-Ideal system. Azeotropes: HCl-H₂O and Ethanol-Water System. Partially Miscible Liquids: Phenol-Water, Trimethyl Amine-Water, Nicotine water System, Lower and Upper consulate Trimethyl Amine Water, Nicotinewater system, Lower and Upper Consulate Temperature. Effect of Impurity on Consulate Temperature.</p>	<p>2. Carbohydrates Defination, Introduction and Classification. Monsaccharides-Interconversion of Glucose and Fructose, chain lengthening, chain shortening of aldoses. Conversion of Glucose in to mannose. Determination of open chain structure of glucose & pyranose ring structure of glucose .Mechanism of Mutarotation and Introduction to disaccharides (maltose, sucrose and lactose) and Polysaccharides (Starch and cellulose) without involving structure determination</p>



<p>Jun-2021</p>	<p><u>II Gaseous States:</u> Postulates of kinetic theory of gases, kinetic gas equation, Deduction of Gas Laws : Boyles Law, Charles Law, Grahams Law of diffusion, Avogadro's hypothesis, deviation from ideal behavior, van der Waals equation of state. Critical Phenomena : PV isotherms of real gases.</p> <p><u>III Chemicals Kinetics and Catalysis:</u> Chemical Kinetics and its scope, rate of reaction, factors influencing the rate of reaction - concentration, temperature, pressure, solvent, light, catalyst concentration dependence of rates. Derivation of rate law and characteristics of simple chemical reactions - zero order, first order, second order, Pseudo order, half life. Effect of temperature on rate of reaction. Arrhenius equation, concept of activation energy.</p> <p><u>Catalysis</u> : Definition, types, and characteristics of catalysis, homogeneous, heterogeneous catalysis - Enzyme catalysis and its application.</p>	<p><u>2) Electro Chemistry-I</u> Electrical Transport: Conduction in metals and in Electrolyte Solutions. Specific Conductance and equivalent conductance, measurement of equivalent conduction, variation of equivalent and specific conductance with dilution. Numerical problems. Kohlrausch's law and its application. Arrhenius Theory of Electrolyte Dissociation and its limitations. Weak and Strong Electrolytes, Ostwald's Dilution Law, its use and Limitations. Transport Number: Definition, Determination by Hittorfs Method and Moving Boundary Method. Conductometric Titration: Types and its advantages.</p>	<p><u>3. Synthetic Polymers</u> Introduction, Classification based on nature of synthesis (without mechanism) with examples. (Addition and condensation polymers). Properties, uses and synthesis of polyvinyl chloride, polyvinyl acetate, polystyrene, polyacrylonitrile, Nylon 6, Nylon 66. Introduction to synthetic and natural rubber, properties, uses and synthesis of Buna N., Neoprene and silicon rubber.</p>
<p>Jul-2021</p>	<p><u>IV Liquid State:</u> Intermolecular forces, structure of liquids (a qualitative description). Difference between solids, liquids and gases. Liquid Crystals: Classification, structure of nematic and cholestric phases</p> <p><u>V Solid State :</u> Types of solids, Amorphous, crystalline and difference between them, Miller Indices. Laws of crystallography - (i) Law of constancy of interfacial angles (ii) Law of rationality of indices (iii) Law of symmetry. Symmetry elements in crystals. X-ray diffraction by crystals.</p>	<p><u>3) Electrochemistry-II</u> Types of Reversible Electrodes: Gas- Metal Ion, Metal-Metal Ion, Metal-Insoluble salt Anion and Redox Electrodes. Nernst Equation, Derivation of Cell, E.M.F. and single Electrode potential, Standard Hydrogen Electrode, Reference Electrodes, Standard Electrode Potential, Sign Conventions, Electro-Chemical Series and its significance. Electrolytic and Galvanic Cells, Reversible and Irreversible Cells, Conventional Representation of Electro Chemical Cells. E.M.F. of a cell and its measurement, Calculation of Thermodynamic Quantities of Cell Reactions (G, H and K) Definition of pH, pKa-Determination of pH using SHE and Glass Electrode by Potentiometer method. Buffer-Acidic and Basic Buffers,</p>	<p><u>4. Synthetic Dyes and Drugs</u> Synthetic Dyes - Definition, colour and constitution (electronic concept) of dye, classification based on chemical constitution, synthesis of methyl orange, Congo red, malachite green, crystal violet, Alizarin and indigo dyes. Synthetic Drugs - Definition, introduction, classification of drugs. Properties of ideal drug. Synthesis of chloramphenicol, paracetamol, phenacetin, sulphaguanidine.</p>



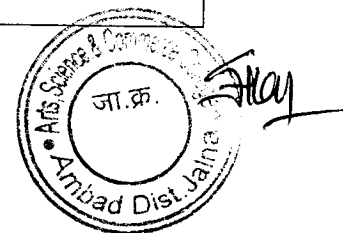
	Derivation of Bragg equation	Mechanism of Buffer Action, Henderson-Hasselbalch equation. Corrosion: Dry (Atmospheric) Corrosion and Wet (Electro-Chemical) Corrosion Electrochemical Theory of Corrosion.	
Jul-2021	<p>VI Colloidal State :</p> <ul style="list-style-type: none"> • Definition of colloids, classification of colloids. • Solids in liquids (sols) : properties - kinetic, optical and electrical; stability of colloids, protective action. Hardy - Schulze Law. • Liquids in liquids (emulsions) : types of emulsions, preparation. • Liquids in Solids (gels) : classification, preparation and properties, general applications of colloids. 		



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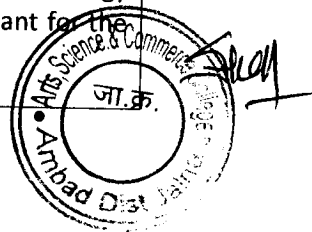
Department of Chemistry

Month	Class: B.Sc.F.Y.	Class: B.Sc.S.Y.	Class: B.Sc.T.Y.
	Paper: VI	Paper: XII	Paper: XVIII
	Semester: I	Semester: III	Semester: V
Nov-20	<u>I Organic Qualitative Analysis:</u> Nature / Functional group / Element / Derivative / Physical constant (i) Benzoic acid, (ii) salicylic acid,	<u>Section A: Instrumentation:</u> i. To determine normality and strength of HCl using (0.1N) NaOH Solution Conductometrically. ii. To determine normality and strength of acetic acid using (0.1N) NaOH solution Conductometrically.	<u>Organic Estimation</u> i) Estimation of Carbonyl group by hydrazone formation method ii) Estimation of vitamin C in commercial soft drink / Glucon D
Dec-20	(iii) β -naphthol, (iv) p-nitroaniline,	iii. To determine normality and strength of HCl using (0.1N) NaOH solution by pH-metrically. iv. To verify Lambert-Beers Law using KMnO ₄ solution. v. To estimate the amount of Sugar using Polarimeter.	iii) Estimation of ascorbic acid iv) Estimation of Saponification value of oil <u>Organic Preparation and its purity by TLC</u> i) Preparation of Hydrazobenzene from azobenzene. ii) Preparation of Phthalic anhydride from phthalic acid.
Jan-21	v) Naphthalene (vi) Acetanilide	vi. To determine refractive index of ethanol water system. vii. To determine indicator constant of indicator colorimetrically	iii) Preparation of 2, 4 dinitrophenyl hydrazone of acetone. iv) To prepare picrate of Naphthalene. v) To prepare picrate of Anthracene. Vi) preparation of p - bromo acetanilide from acetanilide



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Annual Teaching Plan (Year: 2020-21)

Month	Class: B.Sc.F. Y.	Class: B.Sc.S.Y.	Class: B.Sc.T.Y.
	Paper: IV	Paper: VII	Paper: VI
	Semester: II	Semester: IV	Semester: VI
Apr-21	<p>II Organic Estimation:</p> <ul style="list-style-type: none"> Phenol by Bromination 	<p>Section B:</p> <p>Organic Derivatives:- Preparation, Crystallization and Physical Constant.</p> <p>i. Acetyl Derivatives : a) Aniline b) Salicylic Acid</p> <p>ii. Benzoyl Derivatives : a) Aniline b) B-naphtol</p> <p>iii. Hydrolysis Derivatives : a) Ethyl Benzoate b) Aspirin</p> <p>iv. Bromo-Derivatives : a) Phenol b) Cinnamic Acid</p>	<p>Instrumental</p> <ol style="list-style-type: none"> Determine the Strength of HCl and CH₃COOH in a given mixture by titrating against strong base conductometrically. Determine the strength of oxalic acid conductometrically using sodium hydroxide solution. To determine empirical formula of ferric - 5-sulphosalicylate
May-21	<ul style="list-style-type: none"> Estimation of basicity, molecular weight of organic acid (oxalic/acetic acid) 	<p>Organic Estimations:</p> <ol style="list-style-type: none"> Estimation of nitro group by reduction. Estimation of glucose. 	<ol style="list-style-type: none"> Determine the amount of Fe²⁺ in the given solution potentiometrically To determine the refractive indices of series of salt solutions and to find out concentration of the salt in given unknown solution.
Jun-21		<ol style="list-style-type: none"> Estimation of ester by hydrolysis. Estimation of amides by hydrolysis 	<p>Non-Instrumental</p> <ol style="list-style-type: none"> To determine the interfacial tension between two immiscible liquids. To study the effect of addition of an electrolyte NaCl / KCl on the solubility of benzoic acid at room temperature. To determine the standard free energy change ΔG^0 and equilibrium constant for the reaction $Cu + 2 Ag^+ = Cu^{2+} + 2 Ag$.

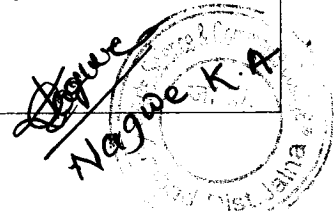


Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

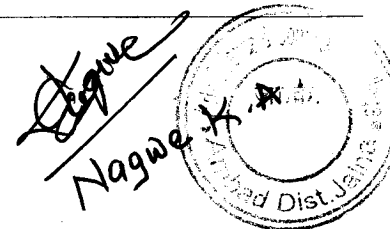
Department of History

Month	Class: B.A.F.Y.	Class: B.A.S.Y.	Class: B.A.T.Y.
	Paper: PAPER NO. 01 :- SHIVAJI AND HIS TIMES (A.D. 1630 – A.D. 1707)	Paper: PAPER NO. 6 - HISTORY OF DELHI SULTANAT (A.D. 1200 - A.D. 1526)	Paper: 09-FIELDS OF HISTORY (ARCHAEOLOGY, MUSEOLOGY, TOURISM)
	Semester: I	Semester: III	Semester: V
Nov-2020	Rise of Maratha Power: Geography of Maharashtra, Socio-religious and economic background, Shahaji Bhosle.	Source material for the study Political History (A brief Survey) : a) Turkish invasion of India and foundation of Delhi Sultanat	Introduction of Archaeology : a) Meaning and object b) Archaeology and Arthropology, Archaeology and Material Sciences. c) A brief history of Indian Archaeology.
Dec-2020	Early expeditions of Shivaji : Concept of Hindavi Swaraj, Capture of Torana, Afjalkhan Episod, Siddi Johar's invasion of Panhala Fort. Shivaji – Mughal relations : Attack on Shahista Khan	b) Reign of Khiljis, Tughlaqs and Lodis. c) The Vijaynagar empire and the Bahamanis Policies and administration of Sultanat rule	Process in Archaeology: a) Search of Archaeological sites. b) Collection and classification of Archaeological material (remains) Museology: a) Definition of museum and Museology b) Aims and functions of History museums c) Documentation, identification, classification and indexing of the material. d) Use of History Museum.
Jan-2021	Chatrapati Sambhaji; Maratha War of Independence.	Economic and Social Life : Peasants and the rural life, trade, industries and merchants; Social Structure, Caste, Slavery. Religion : a) Religious policy of the state	Tourism : a) Definition and object of Tourism, role of History in Tourism. b) Distinction between travelers and visitors, excursionist and business tour. c) Motivation of Tourism – Pleasure education, culture, Social, ethic, religion, health, history.
Feb -2021	Administration during the period of Shivaji : Civil and Military.	b) Sufi movement, Bhakti movement, Vaishnavite movement, Veershiva Culture. Culture: Literature, fine arts and architecture.	Types and forms of Tourism : Domestic, regional, national and international.


 Nagve K.A.
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Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
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Month	Class: B.A.F.Y.	Class: B.A.S.Y.	Class: B.A.T.Y.
	Paper: PAPER NO. 03 :- HISTORY OF THE MARATHA'S (A.D. 1707 – A.D. 1818)	Paper: PAPER NO. 7 - HISTORY OF MUGHAL INDIA (A.D. 1526 – A.D. 1707)	Paper: PAPER NO. 13 – HISTORIOGRAPHY
	Semester: II	Semester: IV	Semester: VI
Apr-2021	Transfer of power from Chatrapati to Peshwa – Causes, Chatrapati Shahu, Balaji Vishwanath.	Sources : Literary and Archaeological A brief survey of the political History of Mughal periods	History : Definition, Nature, Scope, Kinds of History, History as a Science and History as an Art
May-2021	Peshwa Bajirao First and expansion of Maratha Power Third Battle of Panipat – causes and consequences	A brief survey of the political History of Mughal periods	History and Other branches of Knowledge : History and Archaeology, History and Anthropology History and Geography, History and Sociology, History and Economics, History and Political
Jun-2021	Revival of Maratha Power – Peshwa Madhavrao. Anglo – Maratha relations Decline of the Maratha power – causes and consequences	Mughal administration: a) Nature of State b) Ruling classes – Nobility and Zamindars, Mansab and Jagir.	Sources of History: Classification of Sources: Evaluation of sources – Authenticity and credibility. 10 4. Modern Thinkers of History: Ranke, Hegel, Karl Marx.
Jul -2021	Administration during the period of Peshwas : Maratha Mandal, Central and provincial administration, Judicial system.	Economic Developments : Agrarian system, industry, trade and commerce, coinage	Major trends in Indian History writing: Imperialist, Nationalist, Marxist, Subaltern. Use of History

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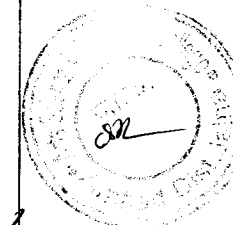
Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Department of History

Mr. Nagwe K.A.

Month	Class: B.A.F.Y.	Class: B.A.S.Y.	Class: B.A.T.Y.
	Paper: Paper I- History of Modern Maharashtra (A.D. 1818 – A.D. 1905)	Paper: PAPER NO. 5 - HISTORY OF EARLY INDIA (UPTO B.C. 300)	Paper: PAPER NO. 10 : HISTORY OF INDIAN NATIONAL MOVEMENT (A.D. 1885-A.D. 1947)
	Semester: I	Semester: III	Semester: V
Nov-2020	Early phase of British Rule : Administration, Education, Press, Activities of Christian Missionaries.	Sources : Literary and Archaeological Harappan Culture : Rise, expansion and decline	Background : Nature, policies and administration of British rule in India
Dec-2020	Early Socio-religious and economic conditions of Maharashtra. Socio – religious Reformers : Gopal Hari Deshmukh (Lokhitwadi), Mahatma Jyotiba Phule, M.G. Ranade, Gopal Ganesh Agarkar.	Vedic Culture : Vedic Literature, early and later vedic society, position of women, religious concepts	Rise of Nationalism in India – Causes and Developments 08 Indian National Congress and National movement : a) Origin of Indian National Congress, b) Leadership of moderates and extremists.
Jan-2021	Early resistance to colonial rule : i) Ramoshi, Bhill and Koli Uprisings. ii) Outbreak of 1857 and Maharashtra. iii) Revolt of Vasudev Balwant Phadke.	Religious movements : Background, Jainism, Buddhism, Lokayat – (Charvak)	Revolutionary movement : Rise, nature and importance of the revolutionary movement. Nationalist movement under the leadership of Mahatma Gandhi
Feb -2021	National Movement in Maharashtra : i) The Bombay Association. ii) Poona Sarvajanik Sabha iii) Indian National Congress – Gokhale and Tilak.	Mauryan and post – Mauryan period : Kautilya's Arthshastra., Ashoka's Dhamma, Art, Architecture, Literature. Economy : Agriculture, trade and commerce.	Rise of communalism leading partition, and independence of India

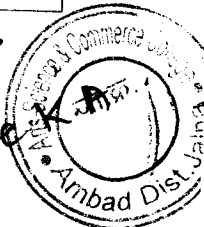
K.A. Nagwe
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Arts, Science & Commerce College, Ambad Dist. Jalna
 Annual Teaching Plan (Year: 2020-2021)

Mr. Nagwe K.A.

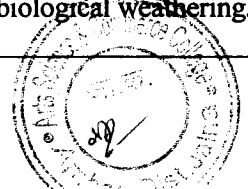
Month	Class: B.A.F.Y.	Class: B.A.S.Y.	Class: B.A.T.Y.
	Paper:	Paper: PAPER NO. 8 - HISTORY OF INDIA (B.C. 300 - A.D. 650)	Paper: PAPER NO. 14 – LANDMARKS IN THE HISTORY OF MODERN WORLD
	Semester: II	Semester: IV	Semester: VI
Apr-2021	National Movement (1905 – 1920) : i) Implication of Surat Split, ii) Revolutionary Movement – Abhinav Bharat, iii) Home Rule Movement.	Sources : Literary and Archaeological Brief survey of Political Changes : Sakas, Kushanas, Satvahanas, Guptas, Vakatakas, Vardhan dynasty, Sangam Age.	Renaissance and Reformation in Europe
May-2021	National Movement (1920 – 1947) : i) Non co-operation movement, ii) Civil Dis-obedience movement, iii) Quit India movement. 3. Social Movements : i) Non-Brahmin movement – Rajarshi Shahu, Keshavrao Jedhe, Dinkarrao Javalkar.	Socio-Economic life : Structure of Society, Social traditions, Education, position of women, Economic conditions and urbanization.	American war of Independence : Causes, Course and consequences French Revolution : Causes, Course and Consequences.
Jun-2021	Dalit Movement and Dr. Babasaheb Ambedkar. iii) Education: Karmveer Bhaurao Patil, Panjabrao Deshmukh.	Religious life : Propagation of Jainism, Buddhism, Shaivism and Vaishnavism.	Industrial Revolution : Background, Development, Significance. First World War : Causes and Effects..
Jul -2021	Hyderabad Freedom Struggle (Marathwada Region). Making of Maharashtra : i) Independent Bombay State. ii) Samyukta Maharashtra Movement.	Development of Arts and Architecture : Caves, Temples, Painting, Fabrics A brief survey of the development of Literature.	Russian Revolution of 1917 : Causes, Course and Consequences. Second World War : Causes, Course and effects.

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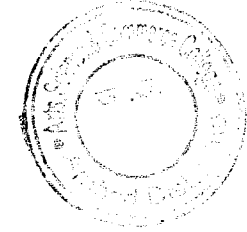
Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Dept. of Environmental Science Annual Teaching Plan (Year: 2020 -2021)

Month	Class: B.Sc.F.Y	Class: : B.Sc.F.Y	Class: B.Sc.F.Y
	Paper: Paper-I EVS-111	Paper: Paper-II EVS-112	Paper: Paper-III EVS-113
	Semester: I	Semester: I	Semester: I PRACTICAL
NOV-2020	Concepts of Environment Unit-I 1. Introduction : Definition of Environment and Environmental Science Environmental Science - Scope and Importance.	Ecology-Unit – I : Introduction: Ecology-Definition and scope, Ecosystem-Concept and structure of ecosystem, Functions of ecosystem	EVS-113 (Paper-III) : Lab Course-I (Practical paper based on paper I & II) 1. To study the 'Laboratory Safety Rules'. 2. To study the cleaning methods of glass wears.
DEC-2020	Biosphere: Definitions, Components of biosphere. 2. Evolution of Life : Origin of the earth; Evolution of life; Atmosphere of the primitive earth. Unit-II: Biotic Components of Environment: Three kingdom of living world-	Biotic Components of ecosystem (producer, consumer and decomposer), Abiotic components of ecosystem (Wind, Temperature, Soil, Minerals, Nutrients, CO ₂ , Solar radiation, etc), Application of ecology in aquaculture Unit – II : Food chain, Food web, Trophic structure, Ecological pyramid, Energy in ecosystem, Energy flow in ecosystem, Laws of thermodynamics.	3. To study the First-Aid and emergency treatment in laboratory. 4. Collection and Preservation of phytoplankton and zooplankton samples from different water bodies (river, pond, lake etc)
JAN-2021	a) Classification of Plants b) Classification of Animals c) Classifications of Protista ABIOTIC COMPONENTS OF ENVIRONMENT Unit-III: Atmosphere: Definition, Structure and composition of atmosphere, Evolution of atmosphere, Composition of air, Atmospheric temperature, Atmospheric pressure	Unit – III: Types of Ecosystems: Terrestrial ecosystem - Dessert ecosystem, Grassland ecosystem, Forest ecosystem (Evergreen and Deciduous), Mountain ecosystem and Marsh land. Unit – IV: Aquatic Ecosystem: Freshwater ecosystem : i) Lentic ecosystem- Ponds and Lakes; ii) Lotic ecosystem – Rivers and Streams. Marine ecosystem: Oceans , Seas, and Estuaries.	5. The qualitative study the phytoplankton's (any 10 specimens). 6. The qualitative study the zooplanktons (any 10 specimens). 7. The quantitative study of zooplanktons - Percentage composition study
FEB-2021	Unit-IV: Lithosphere: Definition, Structure of lithosphere, Soil composition, Soil profile, Physical and chemical properties of soil, Soil formation (pedogenesis)- physical, chemical and biological weathering.	Unit – V : Adaptation: Significance of ecological adaptation , Ecological adaptation in Plants :-Hydrophytes, Xerophytes, Mesophytes and Halophytes;	8. Collection of hydrophytes, xerophytes, mesophytic and halophytic plants / animals specimens. 9. Study of xeric adaptation in plants, morphometrically and histologically. 10. Study of xeric adaptations in animal (at least 5 specimens morphometrically) 11. To study the aquatic adaptations in plants morphometrically and histological (at least 5 specimens)

Dr. Bhutkeri

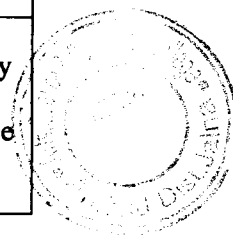


	Unit – V: Hydrosphere: Definition, Structure of water molecule, Properties of water, Distribution of water on earth, Hydrological cycle .	Ecological adaptations in animal	12. Study of mesophytic specimens (at least 5 specimens)
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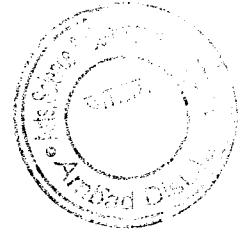


Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Dept. of Environmental Science Annual Teaching Plan (Year: 2020 -2021)

Month	Class: B.Sc.F.Y	Class: B.Sc.F.Y	Class: B.Sc.F.Y
	Paper: EVS-121.Paper-IV	Paper: EVS-122.Paper-V	Paper: EVS-123.Paper-VI
	Semester: II	Semester: II	Semester: II
APR-2021	Environmental Chemistry and Natural Resources Unit – I: Introduction to Environmental Chemistry: Definition of Environmental Chemistry; Concept and Scope of Environmental Chemistry;	Population and Environmental Issues Unit – I: Introduction: Definition of Population and Population ecology; Characteristics of Population: - Natality, Mortality, Density, Migration, Immigration, Age distribution, Age structure.	EVS-123 (Paper-VI): Lab course-II (Practical Paper based on Paper IV & Paper V) 1. To study the laboratory equipments and instruments (Oven, Microscope, Incubator, Inoculation chamber, Autoclave, Electronic balance, pH meter, Colorimeter, Turbidity meter, etc). 2. To study the preparation of reagents of different Normality and Molarities (i.e. 1 N, 0.1N, 1M, etc).
MAY-2021	Definition and description of various terms :-Contaminant, Pollutant, Sink, Aerosols, RSPM, Particulate matter, DO, COD, BOD, Toxicology, Toxins, Hazardous chemicals, Carcinogens, Sewage, Affluent, Effluents, Potability etc. Unit – II: Bio-geo chemical cycles in the environment: Carbon cycles, Oxygen cycle, Nitrogen cycles, Phosphorus cycles and Sulphur cycles. Unit – III: Chemistry of ozone layer, Ozone depletion :- Causes and effects, Green house effect:- Major green house gases, Causes and effects, Global warming; Acid rain: - Causes and effects.	Unit – II: Population growth: Population growth curves :- Sigmoid curve and J-Shape curve, Population fluctuation –Population oscillation, World's Population and its relation with development and pollution, Population explosion, Population explosion in India, Family planning. Unit – III: Community ecology: Definition and types of community, Structure and classification, characteristics of community, Stratification, Ecotone and Edge effect.	3. To study the species area curve of plant species from terrestrial ecosystem / college campus. 4. To study the relative density of plant/animals species by quadrat method (by field work or by simulation). 5. To study the relative frequency of plant / animal species by quadrat method (by field work or by simulation). 6. To study the relative abundance of plant / animal species by quadrat method (by field work or by simulation).
JUN-2021	Unit – IV: Natural resources: Definition, Classification of resources:-Renewable and Non-renewable, Mineral resources :- Uses and their exploitation, Energy Resources:- Fossil fuel energy	Unit – IV: Ecological Succession: Definition, types of succession, Process of succession, Examples of succession: – Succession in plants on rocks and in water body, Concept of climax. Unit – V: Environmental issues: Definition and concept of :- Biodiversity conservation,	7. To study the total population of species by organism removal method (by simulation method) 8. To study the Importance Value Index (IVI) of any tree plant species. 9. Study of primary productivity of macrophytes from water



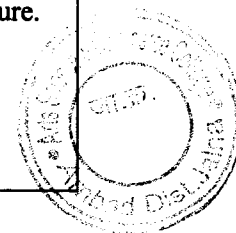
	resource, Wind energy , Solar energy, Biomass energy.		reservoir by harvest method. 10. To study the endangered species (at least 06).
JUL-2021	Unit – V: Forest and Wild Life Resources: Forest resource :- Types of forest , Importance of forest, Deforestation, Aforestation, Social forestry, Wild life :- Important wild species from India,National Parks and Sanctuaries- (Kanha National Park, Tadoba National Park, Jaikwadi Bird Sanctuary)	- Sustainable development, - Wetland, - Mangroves, - Environmental impact assessment (EIA), - SEZ (Special Economic Zone), - Scheme of labeling of environmental friendly products (Eco-marks), - Wasteland.	11. To determine the total population of avifauna from unit area of habitat by direct count of their nests and artifacts. 12. Submission of study tour / field visit report.



Arts, Science & Commerce College, Ambad Dist. Jalna

Dept. of Environmental Science Annual Teaching Plan (Year: 2020 -2021)

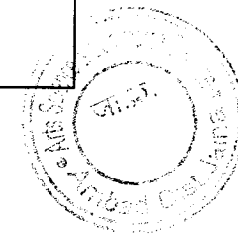
Month	Class: B.Sc.S.Y Paper: EVS-231, Paper-VII Semester: III	Class: B.Sc.S.Y Paper: EVS-232, Paper-VIII Semester: III	Class: B.Sc.S.Y Paper: EVS-233, Paper-IX Semester: III	Class: B.Sc.S.Y Paper: EVS-234, Paper-X Semester: III
NOV-2020	Unit-I : Solid Waste :- Introduction, Classification of solid waste,	Unit-I : Introduction:- a). Definition, Branches of Microbiology, (Industrial, Medical, Mycology, Environmental microbiology), History of Microbiology.	1. Collection and preservation of soil samples. 2. Determination of Lime by titration method.	1. To study the principle and applications of instruments used for microbiological study- Incubator, Inoculation chamber, Microscope. 2. To study the morphological characters of bacteria by Simple staining method
DEC-2020	Types of solid waste (Domestic, Industrial and Biomedical and Hazardous waste), Sources of solid waste, Concept of segregation at source. Unit-II: Solid Waste Management: 3-R's: Reduce, Reuse, and Recycle of solid waste, Collection of garbage, Disposal methods : Sanitary land filling, Disintegration, Incineration, Eco-friendly techniques: Composting and Vermicomposting.	b). Kingdom Protista : Concepts and classification of : - Prokaryotes (Bacteria and Cyanobacteria) - Eukaryotes (Algae, Fungi and Protozoans) Unit-II: Bacteria: - Morphology and general characters, - Classification of bacteria based on temperature, pH, oxygen requirement, Carbon and energy source. - Growth of bacteria.	. 3. Determination of organic carbon from soil samples by Ignition / Walkey method. 4. Determination of Electrical Conductivity of soil samples. 5. To study the pH of solid waste and soil. 6. Determination of NPK of Solid waste / soil samples.	3. Study of bacteria by Grams staining method. 4. Study of bacteria by negative staining method. 5. IMVIC Test (Faecal and non Faecal coliforms) 6. Qualitative analysis of water by MPN technique.
JAN-2021	Unit-III: Soil: Importance of organic fertilizers, Soil microbiology, Standards or soil quality required for various crops, Soil pollution cause and remedies, Conservation of soil, Soil erosion.	Unit-III: Viruses: -Morphology, General characters of viruses, - Distribution (Animal , Plant and Bactriophage viruses). Unit-IV: a) Pure culture : Concept, Preparation and Preservation, b) Control of microorganism : - Sterilization and disinfection - Physical agents (Heat, Radiation, Filters), - Chemical agents (Acid, Ethylene oxide, Alcohol and heavy Metals)	7. To study the water holding capacity of soil. 8. Measurement of Noise by Noise meter (dB meter) 9. Demonstration/ Preparation of vermicompost bed for organic solid waste	7. Identification of bacterial growth by Streak plate, Pour plate and Spread plate method. 8. Motility of bacteria by hanging drop technique. 9. Sterilization of culture media. 10. Preparation of pure culture.



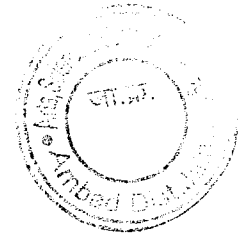
FEB-2021	<p>Unit-IV: Noise: Introduction, Definition, Standards prescribed for Noise in Indian context. Characteristics of sound, Noise measurement, db meter Unit – V: Noise pollution: Sources of Noise Pollution, Mechanism of hearing, Effect of noise,.</p>	<p>c) Definition and concept of vaccinations : Antigen and Antibodies as preventive measures against microbial diseases Unit – V: Diseases caused by contaminated water: - Introduction and Sources</p>	<p>10. To study the percentage composition of degradable and non bio-degradable waste. 11. Determination of total acidity of soil sample. 12. Determination of total alkalinity of soil sample</p>	<p>11. Membrane technique (Demonstration) 12. Study of standard plate count (SPC)</p>
MAR-2021	<p>Noise Pollution control (at Industrial, commercial and Residential places).</p>	<p>Water borne bacterial diseases with their causal organism, symptoms, prevention and control measures: Cholera, typhoid, Shigellosis.</p>		



Month	Class: B.Sc.S.Y	Class: B.Sc.S.Y	Class: B.Sc.S.Y	Class: B.Sc.S.Y
	Paper: EVS-241, Paper-XI	Paper: EVS-242, Paper-XII	Paper: EVS-243, Paper-XIII	Paper: EVS-244, Paper-XIV
	Semester: IV	Semester: IV	Semester: IV	Semester: IV
APR-2021	Unit-I : Introduction to air pollution:- Definition, Composition and Chemistry of Earth atmosphere, Sources and classifications of air pollutants: Sources of air Pollutants, Classification of air pollutants, Factors affecting air pollution	Unit-I: Water resources: - Global Water Balance (GWB) - Surface water sources : Lakes, Streams, Rivers - Underground water sources : Infiltration galleries, Infiltration wells. - Types of Lake, (Oligotrophic, Mesotrophic and Eutrophic)	1. Study of various equipments used in air pollution. 2. Detection and identification of Pollen grains.	1. Study of instruments used in water analysis :- pH meter, Conductivity meter, Turbidity meter,colorimeter. 2. Study of penetration of light in water reservoir by Secchi disk. 3. Determination of pH and temperature of water sample.
MAY-2021	Unit-II: Effect of air pollution: a) On human health, Vegetation, Historical monuments and on Materials. b) Episodes : London smog, Bhopal Disaster, Los Angeles, Chernobyl disaster	Unit-II: Uses of Water and Water Supply: - Uses : Domestic, Industrial, Agricultural, Recreational, etc. - Types of Water : Fresh and Marine. - Patterns of Drinking water supply Unit-III: Restoration of Water : - Rain Water harvesting, - Roof Water harvesting, - Watershed management.	3. Dust fall measurement by sedimentation method (tiles). 4. Detection of SO ₂ gas and its effect on plants. 5. Detection H ₂ S gas and its effect on plants.	4. Determination for total Alkalinity of water sample. 5. Measurement of Rain fall by Rain gauge meter. 6. Determination of residual chlorine from treated water by titration. 7. Determination of total Acidity of water sample.
JUN-2021	Unit-III: Air sampling and analysis: Principle and Functioning of: High Volume Air Sampler, Sedimentation, Tilak Air Sampler, Ambient air quality Monitoring : SO _x , NO _x , SPM, RSPM Unit-IV: Pollution control methods: Sedimentation, Filters, Cyclone,	Unit-IV: Management : - Self purification of rivers, - Integrated Water Resource Management (IWRM), - Integrated Lake Basin Management (ILBM) - Stockhom Water Prize, - Water Act 1974	6. Detection of NH ₃ gas and its effect on plants. 7. Measurement of atmospheric temperature by maximum and minimum thermometer. 8. Preparation of PDA	8. Determination of Dissolved oxygen content from water. 9. Determination of Hardness from ground water. 10. Determination of Chlorides from water / waste water sample

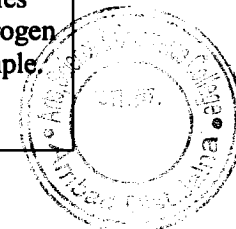


JUL-2021	<p>Electrostatic Precipitator, Scrubbers.</p> <p>Unit-V: Air Pollution Act 1981 Air pollution standards – Indian ambient air quality standards and United States Standards</p>	<p>Unit-V: Case Study : - Aurangabad Municipal Water Supply. - Water Purification Treatment Plant at Pharola, Aurangabad. - Nath sagar reservoir (Jaikwadi dam).</p>	<p>6. Detection of NH₃ gas and its effect on plants. 7. Measurement of atmospheric temperature by maximum and minimum thermometer. 8. Preparation of PDA</p>	<p>11. Study of primary productivity of water body. 12. Study of endangered species i.e. wild animals (any five).</p>
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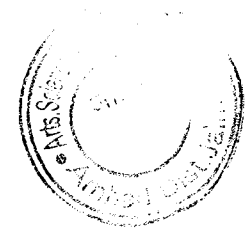


Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Dept. of Environmental Science Annual Teaching Plan (Year: 2020 -2021)

Month	Class: B.Sc.T.Y	Class: B.Sc.T.Y	Class: B.Sc.T.Y	Class: B.Sc.T.Y
	Paper: EVS-351, Paper-XV	Paper: EVS-352, Paper-XVI	Paper: EVS-353, Paper-XVII	Paper: EVS-354, Paper-XVIII
	Semester: V	Semester: V	Semester: V-Lab course	Semester: V- V-Lab course
NOV-2020	Introduction : Unit:I .water pollution	Introduction: Unit:I . Treatment Technology, Waste water Defination.	1. Study of sampling techniques. 2. Study of preservation of water samples.	1. Estimation of sulfate from water sample
DEC-2020	Unit:I .Meaning of the terms : potability,sewage,affluent,Effluent Sample,Contamination,Eutrophication ,Pollution,Pollutants. Sources of water pollution: Domestic, Industrial,Agriculture.	Unit:I . Types and sources of waste water,Needs of wastewater treatment,collection of waste water. Unit:II .Principal, working mechanism,advantages and disadvantages of following sewage treatment methods:	3. Determination of BOD of water sample. 4. Determination of COD of water sample. 5. Determination of Suspended solids of water sample.	2. Estimation of phosphates from water samples 3. Estimation of nitrates from water sample 4. Estimation of nitrites from water samples
JAN-2021	Unit:II . Types of water pollution- Introduction ,Sources and effects of pollutants on aquatic flora and fauna a)Fresh water pollution:River,Ponds and lakes, b)Ground water pollution c)Marine water pollution Unit:III . Analysis of water Physical parameter and chemical parameter	Unit:II .Preliminary treatment: Grite chamber. Skimming tank. Screening. Primary treatment: sedimentation (clarifier) Coagulation(chemical precipitation tank) Unit:III . Secondary treatment(biological treatment) Aerobic : Trickling filter, Activated sludge, oxidation ponds,lagoons. Anaerobic treatment : septic tank, sludge digestion and disposal	6. Determination of dissolved solids of water sample. 7. Determination of total solids of water samples. 8. Determination of Oil & Grease in polluted water. 9. Determination of Free CO ₂ in water sample.	5. Estimation of ammonia in water samples 6. Determination of conductivity of water sample 7. Jar test demonstration
FEB-2021	Physical parameter : color , odour, taste,TS,SS,DS,Turbidity chemical parameter : pH, Hardness,chlorides,residual chlorine,DO,BOD,COD,oil and grease,Ammonia,Nitrates,Nitrites,sulphates, phosphates. Unit:IV . Biological parameter :	Unit:IV . Tertiary treatment or chlorination : Aim, need, dose of chlorine. Ozonation Unit:V . Water purification methods : Collection of raw water, sedimentation,	10. Estimation of abundance Phytoplankton's from water samples. 11. Quantitative techniques in aquatic microbiology – SPC 12. The presumptive, confirmatory and completed tests for determination of sewage	8. Determination of chlorine by chloroscope 9. Determination of redox potential of water samples 10. Determination Hydrogen Sulphide in sewage sample. 11. Determination of dissolved oxygen from

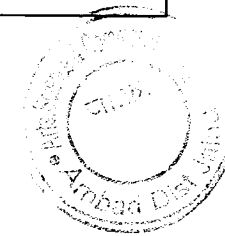


	Planktons,Algae. MPN/100ml,IMViC test,SPC.		contamination.	polluted water sample by using azide modification.
MAR-2021	Unit:V. Quality of water: Meaning of pure water. Standard of Potable water.	Unit:V. Filtration, disinfection.	13. Determination of Water Quality Index (WQI).	12. Determination of Turbidity from given water sample.

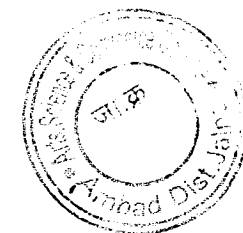


Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Dept. of Environmental Science Annual Teaching Plan (Year: 2020 -2021)

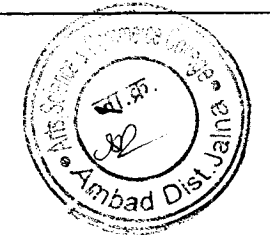
Month	Class: B.Sc.T.Y	Class: B.Sc.T.Y	Class: B.Sc.T.Y	Class: B.Sc.T.Y
	Paper: EVS-361, Paper-XIX	Paper: EVS-362, Paper-XX	Paper: EVS-363, Paper-XXI	Paper: EVS-364, Paper-XXII
	Semester: VI	Semester: VI	Semester: VI, Lab course	Semester: VI
APR-2021	Unit:I Introduction: Toxicology: Defination. Concept of toxicology, movement of toxicants in the Environment,	Unit:I. Introduction to safety and safety management.	1) Estimation of Zn from provided contaminated water sample 2) Determination of iron content from contaminated water.	Project work, Industrial visit report and Seminars. i) Project report: One project has to be completed during the third year as a part of practical paper of sixth semesters Lab course
MAY-2021	Classification of toxic substances, i.e. Toxic gases, Organic poison, Inorganic poison. Unit:II. a) Factors affecting Toxicity: Chemical factors- Polarity, Molecular weight, Nature of chemical. Biological factors: Sex, Age, Body weight, Heredity and genetic characters. b) Dose response relationship. c) Acute exposure and chronic exposure. Unit:III. Occurance , pollution source, use, effect and remedial measure of: a) Gases- CO, CO ₂ , H ₂ S, SO ₂ , NO ₂ b) Heavy metals- As, Pb, Hg, Cu.	Need for integration of safety, Health and Environment(S,H & E) Comman safety tips- personal protection Lockout, Accident prevention signs, Occupational noise, Fire safety, Ladder safety. Unit:II. Industrial safety: Introduction. Hazard checklist- House keeping (meaning & methods) Machine Hazard, fire hazard, Protective equipments, Electrical equipments, tools. General safety rules. Unit:III. Safety Management- Safety management – principal of safety management. Fire preservation- Accident prevention(Principal, Basic terms)	3) Estimation of Pb from provided contaminated water 4) Estimation Cu from provided contaminated sample 5) Estimation Mn from provided contaminated water sample 6) Effect of pesticides on seed germination	ii) Industrial visit report: At least one industrial visit is to be arrange during each semester. The industrial visit report is to be submitted along with project report.



JUN-2021	<p>Unit:IV. Environmental Toxicant- Occurance , source, effect and remedial measure :</p> <p>a) Toxicant in water- Hydrocarbons in water.</p> <p>b) Toxicant in soil- Pesticides.</p> <p>c) Toxicant in Air- Atmospheric Lead.</p> <p>Unit:V.Carcionogenic, Chemistry of Carcionogenic compounds, Carciongens, Mutagens and Teratogens.Cancer causing agents- Drug , tobacco, Narcotic.</p>	<p>Unit:IV. Hazardous Waste. Definition. Sources of Hazardous waste, Classification of Hazardous Waste- Biomedical Waste, Radioactive waste, chemical waste, Household Hazardous waste, Characteristics of hazardous waste- Ignitability (Flammable), Reactivity, Corrosivety, Toxicity.</p> <p>Unit:V.Disposal of Hazardous waste: Recycling, Neutralization, Incineration, Pyrolysis, Hazardous waste Landfill.</p>	<p>7) Effect of Heavy metals of seed germination 8) To study the effects of gaseous pollutant SO₂ on plant (Leaves and flowers). 9) To study the effects of gaseous pollutant H₂S on plant (Leaves and flowers). 10) To study the bioaccumulation of heavy metals and pesticides in living organisms.</p>	<p>iii) Study tour report: The study tour is to be arrange for understanding environment in total. The participation in study tour and industrial visit is compulsory. The study report is to be submitted. iv) Seminar presentation.</p>
JUL-2021	<p>Unit:VI. Toxicity assessment method, Lethal concentration (LC), Lethal dose (LD).</p>	<p>Unit:VI. Effects of hazardous waste, Bhopal Gas Tragedy.</p>	<p>11) Qualitative detection of pesticides from waste water. 12) Estimation of Hg from provided contaminated water</p>	



Annual Teaching Plan (Year: 2020-2021)

Month	Class: B.A. I st year Paper: II nd Individual & Society Semester: I st	Class: B.A. II nd year Paper: VI th Contemporary Urban Issues Semester: III rd	Class: B.A. III rd year Paper: X th Introduction to Research Methodology Semester: V th	Class: B.A. III rd year Paper: XII th Project Work Semester:	Class: Paper: Semester:
Nov	<p>CHAP-I Individual & society</p> <ul style="list-style-type: none"> (a) culture (defi. char.) (b) socialization (defi. & aims) (c) Agencies of socialization. <p>CHAP-II Social structure</p> <ul style="list-style-type: none"> (a) Definition (b) status & Role (c) Norms & values. 	<ul style="list-style-type: none"> (b) Emergence of cities (c) Migration. <p>CHAP-II problems of Urbanization.</p> <ul style="list-style-type: none"> (a) Unemployment (b) Poverty (c) crime (d) prostitution (e) Juvenile delinquency <p>CHAP-III urban planning</p> <ul style="list-style-type: none"> (a) Housing & slums 	<ul style="list-style-type: none"> (c) Importance of social research (d) Theory, Fact & objectivity <p>CHAP-II TYPES of Research</p> <ul style="list-style-type: none"> (a) Applied research (b) pure research (c) qualitative research (d) quantitative research (e) descriptive research 	<ul style="list-style-type: none"> 1- Information about Reference Books & Journals. 2- Reading Material 	
Dec	<p>CHAP-III Social Stratification</p> <ul style="list-style-type: none"> (a) Meaning & Nature (b) caste system. (c) class system. 	<p>CHAP-IV social change</p> <ul style="list-style-type: none"> (a) concept & definition (b) factors responsible for social change. (c) Barriers of social change 	<ul style="list-style-type: none"> (f) Exploratory research <p>CHAP-III Scientific Research</p> <ul style="list-style-type: none"> (a) Formulation of problem (b) Hypothesis (c) sampling techniques 	<ul style="list-style-type: none"> 3- Formulation of projects works title. 4- Reading about it. 5- Formation of objectives 	
JAN	<p>CHAP-IVth social change</p> <ul style="list-style-type: none"> (a) concept & definition (b) factors responsible for social change. (c) Barriers of social change 	<ul style="list-style-type: none"> (b) Urban Infrastructure (c) Scarcity of space <p>CHAP-IV Globalization & urban change.</p> <ul style="list-style-type: none"> (a) Introduction 	<ul style="list-style-type: none"> (d) Data collection (e) Data analysis & statement <p>- REVISION - - Term Exam -</p>	<ul style="list-style-type: none"> 6- Formation of hypothesis 7- Selection of sampling techniques. 	
Feb	<p>CHAP-Vth Social control.</p> <ul style="list-style-type: none"> (a) Definition (b) Types (c) Conformity & deviance <p>- REVISION - - Term Exam -</p>	<ul style="list-style-type: none"> (b) Implications of Globalization for cities & planning. (c) mega projects (d) - JNURM. (e) Revision <p>- Term Exam.</p>	<ul style="list-style-type: none"> (d) Data collection (e) Data analysis & statement <p>- REVISION - - Term Exam -</p>	<ul style="list-style-type: none"> 8- Selection of Research Design 	

Annual Teaching Plan (Year: 2020-2021)

Month	Class: B.A. I st year	Class: B.A. II nd year	Class: B.A. III rd year	Class: B.A. III rd year	Class:
	Paper: IV - Indian Social Composition	Paper: VII - Population in India	Paper: XIV - Social Research Methods	Paper: XVI - Project work.	Paper:
	Semester: II nd	Semester: IV th	Semester: VI th	Semester: VI th	Semester:
MAR	CHAP-I Features of Indian society: a) Bonds of Unity in India (Geo, reli, tradi.)	CHAP - I st basic concepts a) Fertility	CHAP-I: Techniques of Sociological Investigation. a) observation - types	9 - Data collection	
APR	b) Forms of diversity in India (language, ethnic, religions, tribes). c) Values of Indian Society (Non-violence, Tolerance, co-existence)	b) Mortality c) density of population. CHAP - II - Human Popu. Dynamics. a) popu. growth & environment.	b) questionnaire defn, nature, forms. c) Interview	10. Coding & Tabulation 11 - Tables -	
MAY	CHAP - II Indian Population a) characteristics, quantitative problems (over popu., density, migration) b) Popu. planning & popu. control	b) sex ratio. c) female feticide d) Age structure & problems of aging. CHAP - III: Demographic Transition a) Pre-Industrial stage.	CHAP-II: Computer Application & Statistics. a) Use of computer b) Internet c) Statistical Measures	12 - Data analysis	
JUN	CHAP - III: Democracy & secularism - a) Democracy (chara.). b) Social Justice (defn, concept) c) Indian contribution - (chara.) CHAP IV: Rural Population Structure -	b) Industrial stage c) Post Industrial stage CHAP - IV: popu. policy. a) New Popu. Policy of India	a) SASS. CHAP - IV: Utility of social research a) to analyse & social problem	13 - Data analysis - 14 - Report & project submission	
JUL	a) Bala system - b) characteristics. c) changing nature. d) Importance of land holding.	b) Family welfare programme. c) World scenario & china's experience of popu.	b) to study society & social structure. c) Evaluation of welfare schemes d) Policy Advocacy	Annual exam & presentation of project.	
AUG	a) AGRIAN Transformation - REVISION - - Term Exam -	- REVISION - - Term Exam -	- REVISION - - Annual Exam		

Dr. S. L. Gadhekar
Sociology
Ambad Dist. Jalna

Name of Teacher: D. S. Gadhekar

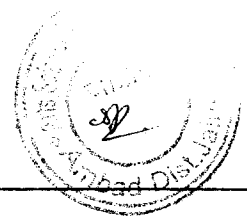
Matsyodari Shikshan Sanstha's

Department: sociology

Arts, Commerce and Science College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Month	Class: <u>B.A. 1st year</u> Paper: <u>I</u> Semester: <u>I</u>	Class: <u>B.A. 2nd year</u> Paper: <u>V</u> Semester: <u>III</u>	Class: <u>B.A. 3rd year</u> Paper: <u>IX</u> Semester: <u>V</u>	Class: <u>B.A. 3rd year</u> Paper: <u>XI</u> Semester: <u>V</u>	Class: Paper: Semester:
<u>Nov</u>	<p>① Introduction to sociology • Definition, subject matter of sociology & scope - Development of sociology [World and India]</p> <p>② Basic concepts</p>	<p>① Institutional Issues. • Disintegration of Rural family. • problems of Rural Women. • Domestic violence Dowry.</p> <p>② Education & Health • Dropout in education • Problem of illiteracy • community Health and malnutrition.</p>	<p>① Emergence of soci. thought ② period of enlightenment ③ French Revolution ④ Industrial Revolution ⑤ Recent Trends in sociological Theory</p>	<p>(a) corruption in India and its implication. Nature, causes (b) measures on corruption (c) white collar crime, suicide ② Displacement & Rehabilitation (a) Displacement & problem of Development project [SEZ] problem of land acquisition of farm and industrial project (c) commercialization of agriculture (d) measures on Rehabilitational problems ③ problems of Inequality Educational inequality women education (b) Rural India Against</p>	
<u>Dec</u>	<p>• society • social groups • social institutions • social system</p> <p>③</p>	<p>③</p>	<p>④ The Pioneers:- August Comte: positivism Law of three stage (b) • Herbert Spencer: Theory of organism Evolution (c)</p>	<p>(a) Displacement & problem of Development project [SEZ] problem of land acquisition of farm and industrial project (c) commercialization of agriculture (d) measures on Rehabilitational problems ③ problems of Inequality Educational inequality women education (b) Rural India Against</p>	
<u>Jan</u>	<p>Perspective in sociology • structural • Functionalist • conflict</p> <p>④</p>	<p>Rural Economy:- • Problem of Landless Labour. Problem of Rural Industries. • Developmental project & displacement.</p>	<p>Durkheim: Theory of suicide, social fact, The classical tradition (a) Karl Marx: Historical materialism</p>	<p>measures on Rehabilitational problems ③ problems of Inequality Educational inequality women education (b) Rural India Against</p>	
<u>Feb</u>	<p>The use of sociology • Analysis of social problem. • Evaluation of social change • social policy & action</p>	<p>⑤ major issues in development • Rural unemployment • corruption in Govt. schemes. Indebtness</p> <p>Exam.</p>	<p>(b) Max Weber: Theory of Authority, Andries of spirit of capitalism. Protestant Ethics</p> <p>Exam.</p>	<p>Urban India (c) Globalization and its increasing inequality</p> <p>Exam.</p>	



Name of Teacher: P. L. Gadhekar


Matsyodari Shikshan Sanstha's

Department: sociology

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Annual Teaching Plan (Year: 2020-2021)

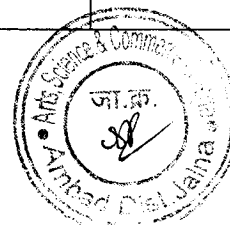
Month	Class: <u>B.A. 1st year</u> Paper: <u>III</u> Semester: <u>II</u>	Class: <u>B.A. IInd year</u> Paper: <u>VIII</u> Semester: <u>IV</u>	Class: <u>B.A. IIIrd year</u> Paper: <u>XIII</u> Semester: <u>VI</u>	Class: <u>B.A. IIIrd year</u> Paper: <u>XV</u> Semester: <u>VI</u>	Class:
<u>MAR</u>	① sociology and society • urban sociology • nature and scope of urban sociology. • significance of urban soci.	① conceptual perspectives on development: Developments under development.	① Functionalism (a) Talcott Parsons Theory of social Action pre-requisites of	① Problem of disorganization (a) concept and nature of disorganization (b) causes of	
<u>APR</u>	• Rural sociology: subject matter, significance ② sociology & interaction. social psychology Nature & scope, subject matter political sociology	• sustainable development • social Ad Audit ② development issues • development & socio economic disparities.	social system. (b) Robert merton: • Role set • Reference group ②	disorganization, Lack of mobility cynicism, values and culture ② violence social disorder.	
<u>MAY</u>	Nature & scope, subject matter. ③ sociology & culture • Anthropology meaning • scope • development	• Gender & development • problems of weaker sections. ③ Development Approach • Capitalist view	Lewis coxer- functions of social conflict. • violence (b)	(a) violence against women (b) terrorism in India (c) problem of Naxalism ③ Regionalism:-	
<u>JUN</u>	④ Applied form of sociology • Applied sociology	• socialist view • mixed Approach. ④ Indian experience of Development Govt. schemes	Ralf Dahrendorf: class conflict in industrial society Power and Authority	(a) Regional imbalance of development in India (b) measures on the problem of regionalism	
<u>JUL</u>	• Industrial sociology introduction revision	consequences of L.P.G. developmental issues of marathwada.	③ symbolic interaction (a) C.H. cooley: Looking Glass self primary group. G.H. Mead self, self consciousness	(c) Analysis of regional imbalance marathwada and vidharbhq	
<u>AUG</u>	- Exam.	revision Exam.	functions of self - Exam	- revision - Exam	


 P. L. Gadhekar
 Sociologist

Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
 Annual Teaching Plan (Year: 2020-2021)

Subject: Chemistry

Month	Class: M.Sc.F.Y.	Class: M.Sc.F.Y.	Class: M.Sc.F.Y.	Class: M.Sc.F.Y.
	Semester: I	Semester: I	Semester: I	Semester: I
	Paper: CHE-101	Paper: CHE-102	Paper: CHE-103	Paper: CHE-104
Nov - 2020	Unit-I – Basic concept of Analytical Chemistry. Unit-II-Basic separation technique: Distillation and solvent and solid phase extraction..	Unit-I & II -Group Theory and Symmetry Concept	Unit-I- Nature of Bonding in Organic Molecule	Unit-I- Ionic Equilibria And Biological eaction.
Dec- 2020	Unit-III- Chromatography. Unit-IV- Chromatographic systems (a) Thin layer Chromatography. (b)Liquid-Liquid Partition Chromatography. (c) Column Chromatography.	Unit-III- Reaction Machanism of Transition Metal Complexes.	Unit-II Reaction Machanism: Structure and Reactivity.	Unit-II- Chemical Dynamics.
Jan- 2021	(d) Gel Permeation Chromatography. (e) Ion exchange Chromatography.	Unit-IV- Metal Ligand Equilibia in Solution	Unit-III & IV- Sterio-Chemistry.	Unit-III- Classical Thermodynamics.
Feb - 2021	Unit-V- (a) Gas Chromatography. (b) High Performance Liquid Chromatography.	Unit-V- Inorganic Chemistry In Biological System.	Unit-V Aliphatic Nucleaphilic And Electrophilic Substitution..	Unit-IV- Surface Chemistry. Unit V- Electrochemistry



Singh
Dr. S.N. Singkar

Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Month	Class: M.Sc.F.Y.	Class: M.Sc.F.Y.	Class: M.Sc.F.Y.	Class: M.Sc.F.Y.
	Semester: II	Semester: II	Semester: II	Semester: II
	Paper: CHE-205	Paper: CHE-206	Paper: CHE-207	Paper: CHE-208
Apr 2021	Unit I- General Introduction of Spectral Method of analysis. Microwave Spectroscopy.	Unit-I- Spectroscopic Term Symbols	Unit-I-Aromatic Electrophilic And Nucleophilic Substitutions.	Unit-I-Quantum Chemistry-I.
May-2021	<u>Unit -II- Vibration and Raman Spectroscopy.</u>	Unit-II- Electronic Spectra and Magnetic Properties of Metal Complex.	Unit-II- Addition to Carbon-Carbon Multiple Bond	Unit-II- Quantum Chemistry-II.
Jun-2021	<u>Unit-III- Photoelectron Spectroscopy.</u> Thermal Method of Analysis.	Unit-III- Chemistry Of Metal Carbonyls. Unit IV- Metal Nitrosyl Compounds.	Unit-III- Addition to Carbon-Hetero Multiple Bond	Unit-III- Phase Rule. Unit IV- Crystallography.
Jul-2021	<u>Unit IV- Ultraviolet- Visible Spectroscopy.</u> <u>Infrared Spectroscopy.</u> Unit-V- Nuclear Magnetic Resonance Spectroscopy.	Unit-V- Dioxigen And Diitrogen Complexes.	Unit-IV-Elimination Reactions Unit-V- Rearrangements Reactions.	Unit-V- Photochemistry.

Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Month	Class: M.Sc.S.Y.	Class: M.Sc.S.Y.	Class: M.Sc.S.Y.	Class: M.Sc.S.Y.
	Semester: III	Semester: III	Semester: III	Semester: III
	Paper: CHE-313	Paper: CHE-314	Paper: CHE-315	Paper: CHE-316
Nov - 2020	Unit-I – Nuclear Magnetic Resonance Spectroscopy (H^1 -NMR)	Unit-I- Oxidation.	Unit-I- Introduction in Bio-organic Chemistry.	Unit-I- Pericyclic Reactions-I. Electrocyclic Reaction.
Dec- 2020	Unit-II- C^{13} Nuclear Magnetic Resonance Spectroscopy.	Unit-II- Reduction.	Unit-II - Enzyme Chemistry.	Unit-II- Pericyclic Reactions-II Cycloaddition Reaction Sigmatropic Reaction.
Jan- 2021	Unit-III-Mass Spectroscopy. Unit-V- Problem Based on UV, IR, H^1 -NMR, C^{13}	Unit-III- Organic Reagents. Unit-IV- Reaction Intermediate.	Unit-III-Co-ef Enzyme Chemistry. Unit-IV- Supramolecular Chemistry and Biomimetic Chemistry.	Unit-III- Photochemistry-I Unit-IV- Photochemistry-II
Feb - 2021	Unit-V-(A) Massbauer Spectroscopy. (B) Electron Spin Resonance Spectroscopy.	Unit-V- Formation of Carbon-Carbon Bonds via Organometallic Reagents.	Unit-V- Asymmetric Synthesis.	Unit V- Free Radical Reactions.

Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Month	Class: M.Sc.S.Y.	Class: M.Sc.S.Y.	Class: M.Sc.S.Y.	Class: M.Sc.S.Y.
	Semester: IV	Semester: IV	Semester: IV	Semester: IV
	Paper: CHE-417	Paper: CHE-418	Paper: CHE-419	Paper: CHE-420
Apr 2021	Unit-I – Disconnection Approach.	Unit-I – Rearrangement.	Unit-I- Terpenoids and carotenoids.	Unit-I- Basic Consideration of Drug Activity.
May-2021	Unit-II- Protecting Groups. Unit-III- C-C Disconnections (i) One Group C-C Disconnection (ii) Two Group C-C Disconnection	Unit-II- Name Reactions.	Unit-II- Alkaloids.	Unit-II- Pharmacokinetics.
Jun-2021	Unit IV- Ring Synthesis	Unit-III- Heterocyclic Chemistry. Four Membered. Five Membered. Six Membered. Fused Heterocycles.	Unit-III & IV- Steroids Unit-IV Anthocyanins and Flavones	Unit-III- Pharmacodynamics. Unit-IV- Classification of Drugs Anti-inflammatory Drugs. Anti-hypertensive Drugs. Antibiotics
Jul-2021	Unit-V- Complex Molecule.		Unit-V – Biogenesis..	Anaesthetic Drugs. Anti-diabetic Drugs Anti-neoplastic Drugs.

Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of Home Science

Month	Class: B.A. First Year Paper: I Semester: I Family Resource Manage	Class: B.A. Second year Paper: Extension Education Semester: III	Class: B.A. Third Year Paper: Marriage & family dynamics Semester: V
Nov-2020	Unit I Introduction to management Defn, process of family resource management. a) factor enhancing management process. b) obstacles in improving of management.	Unit I Extension education - definition of edy, types of edy, defn of ext edy, difference betn formal & ext edy, origin, scope, objective, fields, principles & essential links in the chain of human devl. b) Home science Extension - field	Unit I Marriage - defn & function a) Type of marriage - Advantage & disadvantage b) Readiness of marriage - Physiological, Psychological, social, Economical. c) factor to be considered for mate selection.
Dec-2020	Unit II Factor Motivating Management a) value - Importance source classified. b) Goal - defn & Type c) Standard - defn & classification d) Decision making - Steps & type e) Resources - Type & characteristics	Scope, objective philosophy role of Home science Ext edy worker in the field of devl. Essential qualities of Ext worker. Unit II Extension Model & Methods - Model indigenous, social action, participative.	Unit II family - defn & function. a) Type of family - Joint & Nuclear. b) families with special child - Single child, girl child, adopted child, no child, single parent. c) changing form family forms: Surrogate
Jan-2021	Unit III Money Management a) Concept of family Income - Type of Income, Budget - Type Household Budget - stage. b) Saving & Investment - Meaning - Type of saving.	Participation, combination. Methods - Individual contact, group contact, mass contact. Unit III Community organization - Community devl. defn, concept, objective, brief history of Com. devl., Role of Govt, N.G.O. uni & Ruler devl. authorities.	e) Role of husband & wife. f) stages of family life cycle. Unit III Adjustments Parenthood & family crisis, adjustment in marriage & family - financial, sexual, in-law carrier. g) Parenthood - Need & important - family planning, family crisis.
Feb-2021	Unit IV Consumer Education & Work simplification a) defn, Problem of Consumer Rights & Responsibility for Consumer Protection Act 1986, Com. Education b) Work Simplification defn - Mundel's Law of change - fatigue.	Unit IV Social Problem - meaning & importance - unemployment, poor health & Sanitation.	Unit IV Laws related to women - Marriage & family - Hindu marriage act, special marriage act, POCSO, family violence act. Sexual harassment at work, Deep (Vishakha) dowry & child marriage.

Yes

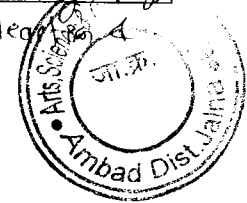
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b) Counselling - scope, defn important - Pre-marital, Post-marital, family & vocational counselling

Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Month	Class: B.A First Year Paper: III Human development Semester: II	Class: B.A Second Year Paper: Food & Nutrition Semester: IV	Class: B.A Third Year Paper: Housing & Interior Decoration Semester: VI
Apr-2021	Unit I Introduction to Human development - Meaning, Def'n, Importance, Scope, Stages of H.D. b) Growth & Devp - Def'n difference bet'n G. & D. Principal factor Inter. Care on growth & development.	Unit I Digestive System (with illus) a) Digestion of food - Carbohydrate, proteins & fat b) Function of endocrine gland.	Unit I Housing - Introduction function. b) Factor to be considered for selection of site, location physical feature. Soil condition cost, service & safety, legal aspects. b) Structural planning of the house.
May-2021	Unit II The beginning of new life a) Reproductive System of males & female b) Preparation of Parenthood c) Parental development - sign, stages d) Factor affecting P.D. e) Stages of Birth Process f) Postnatal care of mother & Baby.	Unit II Energy a) Definition, Energy Requirement b) Factor affecting on energy R. & BMR c) Methods of measuring value of food calorimeter Unit III Meal Planning, Importance.	Principle of house planning, Interior space planning & kitchen layout. Type of house plan, Location plan, elevation plan, cross section plan & floor plan. Introduction to basis of Vastu shastra. b) Building & finishing material. c) The institution providing funds for housing LIC, finance, cooperative &
Jun-2021	Unit III Period of infancy to early childhood - Def'n, character & reflexes - b) Adjustment during Infancy, milestone factor affecting development during infancy. Physical growth & devp - motor devp	b) Factor affecting on meal planning c) Principle of planning a balanced diet - Many planning for the different economic level & different age groups. Weaning food, Baby hood, early & late childhood, adolescence & old age.	Unit II Lighting & Ventilation a) Importance, Type selection & arrangement of lighting. Lighting for different area - Local, specific & decorative. Importance & type of ventilation.
Jul-2021	- Cognitive, Language, social, developmental task of infancy & Importance of early stimulation Unit IV Childhood Problem a) Child rearing practices - b) Behavioral Problem in early childhood thumb sucking, Bed wetting, temper tantrum.	Unit IV Food Preservation a) Concept & Principle of food preservation b) Methods of food preservation Unit V a) Effect of food poisoning & their prevention b) food toxins, food hygiene, c) food adulteration, Identification Methods - adulterants use, food law & Consumer Law	Unit III furniture Arrangement - Selection & principle of arrangement of furniture in different rooms b) Multipurpose furniture, arrangement Unit IV Home furnishing - Curtains Type & selection, floor covering Rug and carpets, Types, Selection & care.



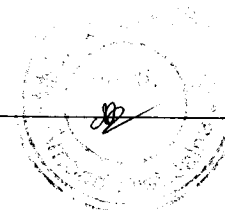
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of Home Science (Practical Paper)

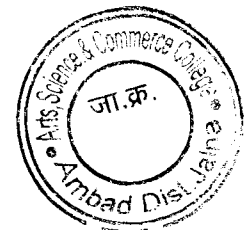
Month	Class: B.A First Year Paper: Food & Nutrition Semester: I	Class: B.A Second Year Paper: Textile & Clothing Semester: III	Class: B.A Third Year Paper: Home Science & Interior Decoration Semester: V
Nov-2020	<p>I) weight & measure of raw & cooked foods.</p> <p>II) Market price of raw & Processed food</p>	<p>I) Knitting - 4 different types of weaves</p> <p>II) Printing - a) tie & dye b) Block Printing Batik.</p>	<p>Unit I - draw a house plan for different economic group lower, middle, middle higher, high income group.</p>
Dec-2020	<p>Planning & Preparation of recipes from food groups (Cereals, pulses, Vegetable & fruits, oil seed milk milk products)</p>	<p>III) Elements of sleeves Plain, bell Puff.</p> <p>IV)</p>	<p>Unit II Preparation of any decorative article.</p>
Jan-2021	<p>Planning & Preparation of Nutrient rich recipe for higher, middle & Lower income group. (Calori, Protein, fat, iron, calcium, vitA, B₁, B₂, B₃)</p>	<p>IV) Construction of garments</p> <p>D Skirt (1/4 size) Umbrella Plated as Dipper. (any one type)</p>	<p>Unit III Making curtain Samples (criss-cross ruffled Three Plated, American, decorative, curtain</p>
Feb-2021	<p>Survey regarding food Packaging labeling of different food products.</p>	<p>a) Child shirt (1/4) size.</p>	<p>Glass curtain modern decorative curtain.</p>

Yes



Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Month	Class: B.A First Year	Class: B.A Second Year	Class: B.A Third Year
	Paper: Textiles & Clothing	Paper: Food & Nutrition	Paper: Fundamental of Art & Design
	Semester: II	Semester: IV	Semester: VI
Apr-2021	Basic Stitches - Hand Embroidery.	1) Planning & Preparation of diet for different age group at different socio economic levels in relation to specific nutritional requirements -	1) Colour Schemes. a) Classification of colour & colour wheel b) Different type of colour schemes. c) Use of colour scheme in different rooms, etc.
May-2021	I) Fabric Painting Preparation of handkerchiefs with painting. • frame making.	2) Pregnancy. 3) Lactation 4) Weaning food 5) Preschool 6) School going	2) Flower Arrangement - a) Material used in flower art. b) Type of arrangement - c) Demonstration on different type of garland.
Jun-2021	II) Preparation of the following items a) Saree Litch b) Mobile cover c) Small Traveling Litch	6) Adolescents 7) Adult, old Age. II) Salad Decoration - III) Food Preservation - - Jam, Jellies, Sauces & Pickles.	3) Use of fresh / 4) floor Decoration. Type of Rangoli Modern Rangoli -
Jul-2021	IV) Drafting cutting & stitching of the garments 1) Garment for infant & toddler 2) Garment for preschool child self help 3) Litchen apron / Traveling bag	IV) Food Adulteration - Demonstration to identify the adulterants used in food.	4) Preparation of Accessories for interiors & ornaments.



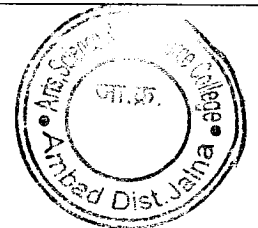
Month	Class: B.A First Year Paper: Food & Nutrition Semester: I	Class: B.A. Second Year Paper: Textile & Clothing Semester: III	Class: B.A Third Year Paper: Home Science & Interior Decoration Semester: V Nutrition & Management of Health & Health
Nov-2020	Unit I Food a) concept of food. b) defn of food Balance diet optimal diet, deficient diet. c) function of food. d) classification of food groups by different methods.	Unit I Introduction to Dyeing. Classification of Typical dyes. a) Natural dyes - b) Synthetic dyes c) Dyeing Methods - Stock dyeing, Yarn dyeing & Piece dyeing.	Unit I Home Science Disease. Health & Nutrition. a) Pattern of health & Nutrition. b) Dimension of health & Nutrition c) Dietary Patterns of different regions & communities.
Dec-2020	Unit II Nutritional significance of cereals, pulses, oil seeds, vegetable fruits, milk & milk products, eat fish, & egg, sugar & jaggery, spices & condiments.	Unit II Printing. a) Introduction. b) Household Printing Methods - tie & dye, Block & screen printing.	Unit II food habits a) Concept & meaning of food habits b) factor affecting food habits c) Effect of industrialization, urbanization, work pattern, Mass Media & food habits on health. d) food hygiene & Sanitation.
Jan-2020	Unit III Nutrition - a) Definition of Nutrition b) Recommended dietary allowances RDA Health & Nutrition.	Unit III Introduction to Clothing Management a) Importance of clothing. b) Psychological aspects of clothing c) wardrobe planning d) Clothing requirements for different age groups.	Unit III Diet Therapy. a) objective & principle of diet therapy b) Modification of normal diet c) Modification of consistency. d) Modification of Texture. e) Modification in nutrients.
Feb-2020	Unit IV Classification Macro Nutrients - proteins, carbohydrate, fat & water. b) Micro Nutrients - Vitamins & Mineral - water soluble vit - B ₁ , B ₂ , B ₆ , folic acid, vit C, fat soluble vit - A, D, E, K. Minerals - Calcium, Phosphorus, Iron & Iodine.	Unit IV Care of household clothing a) factor in inventory selection b) household clothing. c) Renovation of garment. d) Storage of different cloths	Unit IV Dietary management & Nutritional Requirement in common ailment - a) Diarrhea, Constipation, Jaundice Under weight & Over weight - Viral fever.



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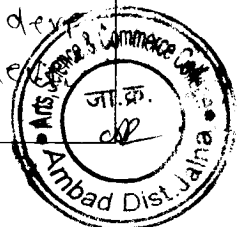
Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Month	Class: B. A. First Year	Class: B. A. Second Year	Class: B. A. Third Year
	Paper: IV Textile & Clothing	Paper: Child development.	Paper: Fundamentals of Art & Design.
	Semester: II	Semester: IV	Semester: VI
Apr-2021	<p><u>Unit I</u> Textile fibre.</p> <p>a) Introduction & Tabular classification of textile fibres Primary & Secondary Properties of fibre. Primary Properties Secondary Properties.</p>	<p><u>Unit I</u> Late childhood</p> <p>a) Defn characteristics & dev task.</p> <p>b) factor affecting development</p> <p>c) developments -</p> <p>d) Behavioral Problems in late childhood</p>	<p><u>Unit I</u> Introduction to foundation of Art</p> <p>1) Design: defn & type</p> <p>2) Elements of Arts,</p> <p>3) Principle of Arts.</p>
May-2021	<p><u>Unit II</u> Finishes - Introduction to finishing process.</p> <p>a) Finishes process.</p> <p>b) Finishing Method.</p> <p>i) Physical finishes</p> <p>ii) Chemical finishes</p> <p>iii) Special finishes</p>	<p><u>Unit III</u> Parent & child relationship</p> <p>a) Important & effect of personality development.</p> <p>b) Discipline - Significance, Methods Rewards and punishment</p>	<p><u>Unit II</u> The colour.</p> <p>a) Dimension of colour - Hue, Value</p> <p>b) Classification of colour.</p> <p>c) colour wheel - Warmness & coldness of colour, B) colour scheme, colour scheme in different Room.</p>
Jun-2021	<p><u>Unit III</u> Principle of clothing construction</p> <p>a) Taking Body Measurement.</p> <p>b) Drafting Making Paper pattern</p> <p>c) Cloth of Layout & cutting</p> <p>d) Basic Elements in clothing</p>	<p><u>Unit III</u> Adolescence.</p> <p>a) characteristics, devn tasks, physical changes, social dev. & emotional maturity.</p> <p>b) Trends in adolescents Thinking interests relationship with parents</p>	<p><u>Unit III</u> Flower Arrangement</p> <p>i) defn, history, material used in FA</p> <p>ii) Type of flower Arrangement -</p> <p>c) Use of A of principles in flower arrangement</p> <p>e) Accessories.</p>
Jul-2021	<p>construction, seam - Types, fulmer, sleeve pattern.</p> <p><u>Unit IV</u> fundamental of Embroidery - History, Rules, Principles of design, colour combination & Thread</p> <p>Methods of teaching the design.</p>	<p>& teacher.</p> <p><u>Unit IV</u> Problems in adolescence: Family & school Behavioral Problems, juveniles, delinquency, child labour.</p>	<p><u>Unit IV</u> floor Decoration Rangoli</p> <p>a) cultural importance of Rangoli.</p> <p>b) Type of rangoli - Dotted, uslag five finger, grains, flower & leave Alpana</p>



Month	Class:	Class:	Class:
	Paper:	Paper:	Paper:
	Semester: I	Semester: IV Health & Disease	Semester: V (Community & Process)
Nov-2020		<p>Class: T.Y.</p> <p>Paper: Nutrition & Management</p> <p>Semester: IV Health & Disease</p> <p>Unit I Health & Nutrition</p> <ul style="list-style-type: none"> 1) Definition of health & nutrition 2) Dimension of health & nutrition 3) Dietary pattern of different regions & communities 	<p>Class: T.Y.</p> <p>Paper: Practical</p> <p>Semester: V (Community & Process)</p> <p>Home Science</p> <p>Unit I Concept of development & communication</p> <ul style="list-style-type: none"> a) Nature, scope & function b) Principles & pattern c) Importance & use of IPC in the process
Dec-2020		<p>Unit II Food Habits</p> <ul style="list-style-type: none"> 1) Concept & meaning of food habit 2) Factors affecting food habit 3) Effect of industrialization 	<p>Unit II Communication Process</p> <ul style="list-style-type: none"> a) Communication Process Model b) Rule of five c) use of channel to transmit the message d) The receiver e) Communication Noise f) The important factors in communication
Jan-2021		<p>Unit III Diet Therapy</p> <ul style="list-style-type: none"> 1) Objective & Principle of diet therapy 2) Modification of Normal diet 3) Modification in consistency 4) Modification of Texture 5) Modification in Nutrients 	<p>Unit III Methods of Communication</p> <ul style="list-style-type: none"> 1) Individual 2) Small group 3) Mass communication 4) Use & Importance of model of communication in Home Science
Feb-2021		<p>Unit IV Dietary Management of Nutrition & Requirement in Common ailments</p> <ul style="list-style-type: none"> 1) Diarrhoea, Constipation 2) Anemia, Underweight & overweight, viral fever, 	<p>Unit IV Leadership</p> <ul style="list-style-type: none"> 1) Concept, importance, characteristics 2) Qualities of leader 3) Function of leadership in development 4) Role of leadership in development of community

Yes



Name of Teacher: Nagare M.M


Art's ,Commerce and Science College, Ambad Dis. Jalna.

Class: B.Sc (T.Y)

Department: Physics

Annual Teaching Plan year 2020-21

Semester: V

Month	Paper-XVII (17) [theory]	Paper-XVIII (18) [theory]	Paper-XIX (19) [practical]	Paper-XX (20) [practical]
Nov	➤ Basic classical mechanics			
Dec	➤ Basic classical mechanics ➤ quantum theory ➤ De Broglie wave	➤ Crystal structure ➤ test	➤ Energy band gap	➤ voltage regulation by zeener
Jan	➤ De Broglie wave ➤ Test	➤ crystal structure ➤ Bonding in solid	➤ Edsar "A" pattern ➤ IH curve by excels	➤ Study of bridge rectifier
Feb	➤ Schrodinger equation ➤ test	➤ Semiconductor devices ➤ Test	➤ Surface tension by ripples method	➤ Study of transistor. ➤ Study of CE
Mar	➤ Schrodinger equation ➤ test	➤ DC circuits ➤ test	➤ Determination of $e/m(\text{cro})$	➤ Rydberg constant 

Name of Teacher: Nagare M.M

Art's ,Commerce and Science College, Ambad Dis. Jalna.

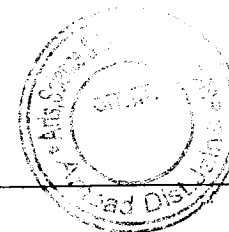
Class: B.Sc (T.Y)

Department: Physics

Annual Teaching Plan year 2020-21

Semester: VI

Month	Paper-XXI (21) [theory]	Paper-XXII (22) [theory]	Paper-XXIII (23) [practical]	Paper-XXIV (24) [practical]
April	Exam	Exam	Exam	Exam
May	<ul style="list-style-type: none"> ➤ Atomic physics ➤ Molecular physics 	<ul style="list-style-type: none"> ➤ Thermal properties of solid 	<ul style="list-style-type: none"> ➤ Op amp as adder ➤ Diffraction grating 	<ul style="list-style-type: none"> ➤ Thevenin theorem.
Jun	<ul style="list-style-type: none"> ➤ Molecular physics ➤ Test. 	<ul style="list-style-type: none"> ➤ Nano physics ➤ Transistor biasing. 	<ul style="list-style-type: none"> ➤ Hartsman dispersion formula ➤ Calibration of bridge by using cray foster bridge. 	<ul style="list-style-type: none"> ➤ Study of JFET.
Jun	<ul style="list-style-type: none"> ➤ Nuclear physics. ➤ Particle accelerator 	<ul style="list-style-type: none"> ➤ Transistor biasing ➤ Operational amp 	<ul style="list-style-type: none"> ➤ H by photocell. 	<ul style="list-style-type: none"> ➤ Study of hartly oscillator. ➤ Study of absorption spectra.
Jul	<ul style="list-style-type: none"> ➤ Particle accelerator. 	<ul style="list-style-type: none"> ➤ Operational amplifier 	<ul style="list-style-type: none"> ➤ Constant B.G 	<ul style="list-style-type: none"> ➤ Study of LCR.
	Exam	Exam	Exam	Exam



Name of Teacher: Nagare M.M

Art's ,Commerce and Science College, Ambad Dis. Jalna.

Class: B.Sc (S.Y)

Department: Physics

Annual Teaching Plan year 2020-21

Semester: III

Month	Paper-IX (9) [theory]	Paper-X (10) [theory]	Paper-XI(11) [practical]	Paper-XII (12) [practical]
Nov	<ul style="list-style-type: none"> ➤ Vector algebra. 			
Dec	<ul style="list-style-type: none"> ➤ Vector algebra. ➤ Differentiation. 	<ul style="list-style-type: none"> ➤ Photoelectric effect. 	<ul style="list-style-type: none"> ➤ RP of telescope. ➤ Thermal conductivity probe method. 	<ul style="list-style-type: none"> ➤ Owens bridge ➤ Study of CRO.
Jan	<ul style="list-style-type: none"> ➤ Differentiation. 	<ul style="list-style-type: none"> ➤ Photoelectric effect. ➤ X-ray 	<ul style="list-style-type: none"> ➤ Id curve by spectrometer. ➤ Wavelength by newtons ring. ➤ Determination of B_h and B_v. 	<ul style="list-style-type: none"> ➤ Viscosity of liquid. ➤ Steafan's constant.
Feb	<ul style="list-style-type: none"> ➤ Statistical mechanics. ➤ Maxwell boltzman statics 	<ul style="list-style-type: none"> ➤ Basic principle of laser. ➤ Types of laser. 	<ul style="list-style-type: none"> ➤ IV charecteristics of solar cell. ➤ High resistance leakage method. 	<ul style="list-style-type: none"> ➤ Divergence of laser beam. ➤ Carry foster bridge.
Mar	<ul style="list-style-type: none"> ➤ Maxwell boltzman statics 	<ul style="list-style-type: none"> ➤ Types of laser. 	<ul style="list-style-type: none"> ➤ PI filter 	<ul style="list-style-type: none"> ➤ Diffraction due to cylindrical obstacle.

Name of Teacher: Nagare M.M

Art's ,Commerce and Science College, Ambad Dis. Jalna.

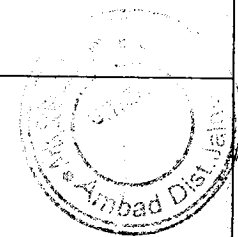
Class: B.Sc (S.Y)

Department: Physics

Annual Teaching Plan year 2020-21

Semester: IV

Month	Paper-XIII (13) [theory]	Paper-XIV (14) [theory]	Paper-XV (15) [practical]	Paper-XVI (16) [practical]
April	Exam	exam	exam	exam
May	<ul style="list-style-type: none"> ➤ Geometrical optics. ➤ Resolving power of optical instrument. 	<ul style="list-style-type: none"> ➤ Time varying field. ➤ Test. 	<ul style="list-style-type: none"> ➤ Coefficient of viscosity. ➤ e/m Thomson method. 	<ul style="list-style-type: none"> ➤ Searle's viscometer ➤ Find sum and series by "C"
Jun	<ul style="list-style-type: none"> ➤ Interference. ➤ Test. 	<ul style="list-style-type: none"> ➤ Time varying field. ➤ Electromagnetic field. ➤ Theory of relativity. 	<ul style="list-style-type: none"> ➤ Thermocouple experiment. ➤ Gaussiun curve. 	<ul style="list-style-type: none"> ➤ Rydberge constant. ➤ Study of laser.
Jun	<ul style="list-style-type: none"> ➤ Diffractionoin. ➤ Test. 	<ul style="list-style-type: none"> ➤ Relativistics transformation ➤ Theory of relativity. 	<ul style="list-style-type: none"> ➤ Convert given no. in to binary and vice versa. 	<ul style="list-style-type: none"> ➤ Mutual inductance. ➤ Carry foster bridge.
Jul	<ul style="list-style-type: none"> ➤ Diffraction. ➤ Test. 	<ul style="list-style-type: none"> ➤ Theory of relativity. ➤ Test. 	<ul style="list-style-type: none"> ➤ Sine and cosine series. ➤ Test. 	<ul style="list-style-type: none"> ➤ Owne's bridge.
April	exam	exam	Exam	exam



Name of Teacher: Nagare M.M

Art's ,Commerce and Science College, Ambad Dis. Jalna.

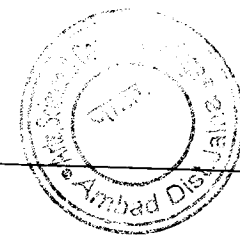
Class: B.Sc (F.Y)

Department: Physics

Annual Teaching Plan year 2020-21

Semester: I

Month	Paper-I (1) [theory]	Paper-II(2) [theory]	Paper-III(3) [practical]	Paper-IV (4) [practical]
Nov				
Dec	<ul style="list-style-type: none"> ➤ Gravitation ➤ Moment of inertia. 	<ul style="list-style-type: none"> ➤ Real gases. 	<ul style="list-style-type: none"> ➤ Keters pendulum ➤ Y by bending of beam. 	<ul style="list-style-type: none"> ➤ Poiseuille's method. ➤ Lee's disc metnod.
Jan	<ul style="list-style-type: none"> ➤ Moment of inertia. 	<ul style="list-style-type: none"> ➤ Real gases ➤ Thermometry. 	<ul style="list-style-type: none"> ➤ Y by cantilever. ➤ M .I of flywheel. 	<ul style="list-style-type: none"> ➤ Thermal conductivity. ➤ Thermo emf.
Feb	<ul style="list-style-type: none"> ➤ Elasticity ➤ Kinematics of moving fluid. 	<ul style="list-style-type: none"> ➤ Thermodynamics. ➤ Black body radiation. 	<ul style="list-style-type: none"> ➤ S.T by jeagers method. 	<ul style="list-style-type: none"> ➤ J by callenders method.
Mar	<ul style="list-style-type: none"> ➤ Kinematics of moving fluid. 	<ul style="list-style-type: none"> >black body radiation. 	<ul style="list-style-type: none"> > γ by flat spiral spring. 	<ul style="list-style-type: none"> > Y by searles method.



Name of Teacher: Nagare M.M

Art's ,Commerce and Science College, Ambad Dis. Jalna.

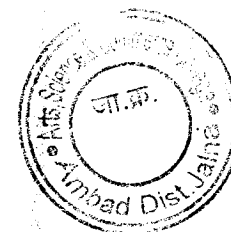
Class: B.Sc (F.Y)

Department: Physics

Annual Teaching Plan year 2020-21

Semester: II

Month	Paper- V (5) [theory]	Paper-VI (6) [theory]	Paper-VII(7) [practical]	Paper-VIII (8) [practical]
April	Exam	exam	Exam	exam
May	<ul style="list-style-type: none"> ➤ Electrostatics ➤ Dielectrics. 	<ul style="list-style-type: none"> ➤ Free oscillation and damped oscillation. 	<ul style="list-style-type: none"> ➤ Study of temperature. ➤ Carry foster bridge. 	<ul style="list-style-type: none"> ➤ Velocity of sound
Jun	<ul style="list-style-type: none"> > Electricity test. 	<ul style="list-style-type: none"> > Forces oscillation. > Wave motion. 	<ul style="list-style-type: none"> > B.G for capacity. > field along circular coil. 	<ul style="list-style-type: none"> > I-H curve
Jul	<ul style="list-style-type: none"> ➤ Magnetostatics. 	<ul style="list-style-type: none"> ➤ Wave motion ➤ Sound. 	<ul style="list-style-type: none"> ➤ Velocity of sound. 	<ul style="list-style-type: none"> ➤ Dispersion power of prism. ➤ RC constant.
Jul	<ul style="list-style-type: none"> ➤ Magnetostatics. 	<ul style="list-style-type: none"> ➤ Sound. 	<ul style="list-style-type: none"> Comparison of capacitance. 	<ul style="list-style-type: none"> ➤ Find even odd number.

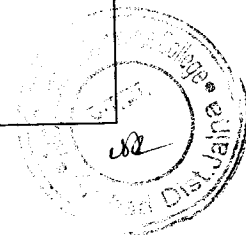


Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Department of Microbiology

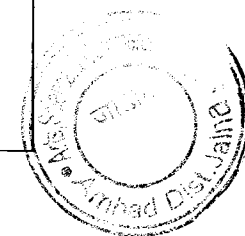
Teacher Name : Milind B Kharat

Month	Class : FY	Class : FY	Class : SY	Class : SY	Class : TY	Class : TY
	Paper : I (TH)	Paper : (PR) III & VI	Paper : VII (TH)	Paper : (PR) IX	Paper :XVI (TH)	Paper : (PR) XXII
	Semester : I	Semester : I & II	Semester : III	Semester : III	Semester : V	Semester : IV
Nov-2020	Fundamentals of Microbiology Credit - 1 1 Scope & relevance of Microbiology i) Definition & concepts ii) Types of microorganism iii) Distribution of microorganisms in nature 2. Development of Microbiology as a Scientific Discipline 1.1 History i) Early observation of microorganisms ii) Spontaneous generation conflict : Contribution of scientists iii) Recognition of the microbial role in diseases. Koch's postulates	1) Microscopy : i) Different parts of a compound microscope. ii) Use and care of compound microscope . iii) Visit to see an electron microscope	VII. Environmental Microbiology Credit 1 : Microbiology of air : (15) Composition of air. Number and kinds of microorganisms in air (indoor, outdoor) Distribution and sources of air borne microorganisms. Air as a carrier of microorganisms. Droplet, droplet nuclei, Dispersal	1) Microbial sampling of air from various sources – indoor , outdoor , hospital . Assessment of air quality by solid , liquid impingement techniques and enumeration using plating and turbidimetry..	XVI Microbial Metabolism Unit :1 (18) • Enzymes : Definition, properties, specificity, active site, activation of enzymes, mechanism of action of enzymes (lock and key , induced fit, ping-pong) • Nomenclature and classification of enzymes • Factors affecting catalytic activity of enzymes (pH, temp.,enzyme conc., substrate conc.,	1) Preparation of buffers and reagents. 2) Study of enzymes :- α -amylase, caseinase, catalase, deaminase, desulfurase, gelatinase, lecithinase, oxidase.



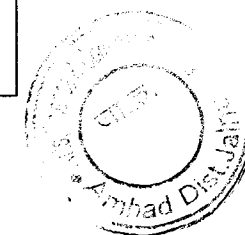
	<p>iv) Recognition of microbial role in fermentations. v) Discovery of microbial effects on organic and inorganic matter. vi) Pure culture concept. vii) Aseptic surgery</p>		<p>of Microorganisms in air. Techniques for microbiological analysis of air. Significance of air flora in human health, hospitals, industries. Air borne diseases - list of diseases caused by bacteria, fungi, viruses. Air pollution. Air sanitation - dust control, UV radiation, bactericidal vapors, filtration, laminar air flow system (HEPA filters)</p>		<p>metal ions, time) • Michaelis_Menten equation : derivation and significance • Types of enzymes :extracellular, intracellular, constitutive and inducible. • Enzyme inhibition : Irreversible ,reversible (competitive, uncompetitive ,incompetitive) and metabolic antagonism, feedback inhibition. • Elementary knowledge and uses of isoenzymes. • Immobilized enzymes and allosteric enzymes. • Commercial uses of enzymes (any five) - (food, leather, textile, environment, pharmaceuticals and clinical) • Types of co-enzymes (NAD, FAD, Lipoic acid, VitB12, Thiamine pyrophosphate) and reactions catalysed</p>	
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Dec-2020	<p>Credit – 2 General characteristics of microorganisms.</p> <p>2.1 General principles (Bacteria)</p> <p>i) Taxonomic rank</p> <p>ii) Classification system</p> <p>iii) Numerical taxonomy</p> <p>iv) Major characteristics used in taxonomy. Morphological, Physiological, Immunological, Metabolic, Etiological.</p> <p>Compositions of proteins, composition of nucleic acids, hybridization, nucleic acid sequencing, identification of organisms based on 16srRNA sequencing, 16S rDNA sequencing</p> <p>v) Bergey's manual of systematic Bacteriology, General characteristics enlisting all parts with major characters & examples. (Vol I to IV)</p>	<p>2) Construction , operation and utility of laboratory equipments</p> <p>i) Autoclave</p> <p>ii) Hot air oven</p> <p>iii) Incubator</p> <p>iv) pH meter</p> <p>v) High speed centrifuge</p> <p>vi) Colorimeter/ spectrophotometer</p> <p>vii) Anaerobic jar</p> <p>viii) Bacterial Filters</p> <p>ix) Laminar air flow.</p>	<p>Credit 2. Microbiology of Water and Waste water management : (15)</p> <p>Water zonation – upwelling, eutrophication</p> <p>Microbial communities in natural water</p> <p>Determining sanitary quality of water :</p> <p>bacteriological evidence of faecal pollution, indicators of faecal pollution.</p> <p>Significance of index organisms. Faecal and non faecal coliforms (IMViC & elevated temperature tests.).</p> <p>Bacteriological examination of water.</p> <p>Presumptive, confirmed, completed test, SPC, MPN, Membrane filter technique.</p>	<p>2) Bacteriological examination of water for potability:: MPN,SPC.</p> <p>3) Presumptive, confirmed, completed test.</p> <p>4) Measurement of chloride, phosphate and nitrate in water.</p>	<p>(atleast two)</p> <p>Unit :2. (15)</p> <p>Definitions: Metabolism, anabolism , catabolism, free energy.</p> <p>• Bioenergetics: chemical links between catabolism and biosynthesis,energy coupling through ATP and through pyridine nucleotides, Central role of ATP-ADP system.</p> <p>• Modes of energy yielding metabolism : Definition and features of fermentation, respiration and photosynthesis.</p> <p>• Fermentation of carbohydrates: EMP, HMP, ED, Phospoketolase pathway (pentose hexose). Alcoholic, homolactic, mixed acid, butanediol, butyric, acetone-butanol</p>	<p>3) Effect of pH , temp, substrate concentration on α- amylase activity.</p> <p>4) Demonstration of nitrate reduction</p>
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			Water pollution : causes hazards & control of human water borne diseases (list). Water purification methods. Disinfection of potable water supplies.		fermentations. S• Aerobic respirations: RETC : location functions, components, redox carriers, oxidative phosphorylation artificial electron acceptors, bacterial cytochrome systems • TCA cycle, glyoxylate cycle, anaplerotic sequences, regulation of TCA.	
Jan-2021	2.2 General characteristics and classification of Viruses.(LHT system) 2.3 General characters of Fungi (including yeasts) 2.4 General characters of Actinomycetes 2.5 General characters of Algae 2.6 General characteristics of Mycoplasma and Rickettsia. 2.7 General characteristics of Archaeobacteria 2.8 Introduction to Gnotobiology/ axenic life/ space microbiology.	□□□Sterility checks for Autoclaving □□□Isolation of microorganisms from : i) Air ii) Water iii) Soil iv) Milk □□□Isolation of bacteria from mixed cultures (streak plate method)	Credit 3. (15) Microbiology of Sewage : Definition of sewage, chemical composition. Microbiology of sewage treatment.: septic tank, evapotranspiration, Imhoff's tank	5) Testing (water/ sewage) for physicochemical parameters including BOD, COD. 6) Isolation of coliphages from sewage and estimation of phage titre. i) Isolation of E coli & identification by IMVIC ii) Cultivation of phages iii) Preparation of phage stocks	Unit : 3 (15) • Catabolism of saturated (16 carbon) and unsaturated fatty acids (16 carbon) by β oxidation • Degradation of proteins and amino acids : proteolysis, putrefaction. • Transformation of aminoacids : oxidation, reduction, decarboxylation, deamination . (one example of each). • .	5) Demonstration of decarboxylation of amino acid. 6) Isolation of photosynthetic bacteria by column method

				iv) Estimation of phages w.r.t. time.		
Feb - 2021	<p>Credit – 3 : 3.1 Microscopy</p> <p>3.1 Properties of light</p> <p>i) Definitions : Magnification, resolving power, depth of focus, focal length, numerical aperture.</p> <p>ii) Objectives Low , high & oil immersion.</p> <p>iii) Oculars : function, Huygenian, Ramsden, Hyperplane & compensating.</p> <p>iv) Condensers ; Abbe, variable focus cordiod, parabolic & their functions.</p> <p>v) Iris diaphragm.</p> <p>3.2 Principles, construction using ray diagram, application and comparative study of :</p> <p>i) Comound Microscope</p> <p>ii) Electron Microscope – SEM, TEM</p> <p>3.3 Principles, ray diagram & applications.</p> <p>i) Phase contrast microscope.</p> <p>ii) Dark field microscope.</p> <p>iii) Fluorescent microscope.</p> <p>iv) Advanced applications of microscopes.</p>		<p>Municipal sewage treatment process : Primary, Secondary, (aerobic and anaerobic process), chemical treatment : chlorination. Disposal of treated sewage. (sludge as fertilizer ; irrigation and dilution)</p>	<p>7) Enumeration and isolation of soil microorganisms : Enrichment culture technique for isolation of bacteria, fungi, protozoa, actinomycetes & algae from soil.</p>	<p>Nucleic acid catabolism: DNA, RNA depolymerization, degradation of nitrogenous bases (mention end products without pathway)</p> <ul style="list-style-type: none"> Biosynthesis of nucleotides: Purine and pyrimidine nucleotides, conversion of ribonucleotides to deoxyribonucleotides. Carbohydrate synthesis : peptidoglycan 	<p>7) Primary screening for :</p> <p>i) Starch hydrolyzers.</p> <p>ii) Organic acid producers.</p> <p>iii) Antibiotic producers.</p>



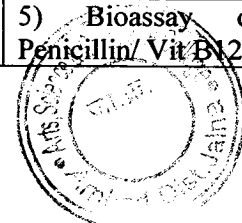
Month	Class : FY	Class : FY	Class : SY	Class : SY	Class : TY	Class : TY
	Paper : V (TH)	Paper : (PR) III & VI	Paper : XI (TH)	Paper : (PR) XVIII	Paper :XIX (TH)	Paper : (PR) XXII
	Semester : II	Semester : I & II	Semester : IV	Semester : V	Semester : VI	Semester : VI
Nov-2020	<p>V Basic Biochemistry Credit – 1</p> <p>Carbohydrates</p> <p>i) Definition and classification.</p> <p>ii) Properties –optical and chemical.</p> <p>iii) Structure of glucose: ring structure, Haworth & fisher’s projection, pyranoses , furanoses, isomers, mutarotation.</p> <p>iv) Triose, pentose, hexose, heptoses - examples & structures.</p> <p>v) Derived monosaccharides: glycosides, furano acids, sugar phosphates, uronic acids, sugar alcohol.</p> <p>vi) Disaccharides , glycoside linkage, lactose, maltose, sucrose.</p> <p>vii) Oligosaccharides – Trisaccharides,</p>	<p>☐☐☐Cultivation of Anaerobes</p> <p>☐☐☐Effect of physical and chemical agents on growth of bacteria.</p> <p>i) pH</p> <p>ii) Temperature.</p> <p>iii) Heavy metal ions (oligodynamic action)</p> <p>iv) UV rays.</p> <p>v) Antibiotics.</p>	<p>XI Applied Microbiology</p> <p>Credit 1.</p> <p>Microbiology of milk : (13)</p> <p>Definition of and composition of milk</p> <p>Sources of microorganisms in milk</p> <p>Desirable and undesirable changes carried out by microorganism in milk</p> <p>Types of microorganisms – Biochemical types, temperature characteristic types and pathogens (of bovine and human origin) ,</p> <p>Changes in the flora of raw milk stored at room temp,</p> <p>Microbiological examination of milk – SPC, DMC reductase tests.</p> <p>Pasteurization,</p>	<p>1) Determination of R: S ratio.</p> <p>2) Demonstration of IAA production using soil fungi.</p> <p>i) Extraction from filtrate.</p> <p>ii) qualitative tests.</p> <p>iii) quantitative estimation.</p>	<p>XIX RDT Unit:1 (15)</p> <p>• Recombinant DNA technology :definition, tools used for cloning, restriction endonucleases (types, nomenclature, recognition sequences, with examples).</p> <p>• Modification of blunt ended DNA (T4 ligase, homopolymer tailing, linkers and adapters)</p> <p>• Vectors : properties of good vector, cloning and expression vectors. (pBR322, pUC8, pSC101,) ,Bacteriophage vectors (λ phage,M 13 phage vectors), phagemid, cosmids, YAC /MAC.</p> <p>• Genetic engineering –</p>	<p>1) Production, detection and estimation of : ----- Ethanol using <i>S cerevisiae</i> var, ellipsoideus. ----- Glutamic acid by <i>Micrococcus glutamicus</i> ----- Citric acid by <i>Aspergillus</i> spp. ----- α-amylase using <i>Aspergillus sp/Bacillus sp.</i> ----- Penicillin by <i>Pencillium</i> spp. ----- Biosurfactants using <i>Pseudomonas</i> spp.</p>

	<p>structure of raffinose.</p> <p>viii) Polysaccharides – Homo and heteropoly saccharides, structures starch, cellulose, mucopolysacchrides.</p> <p>ix) Biological significance</p>		<p>phosphatase test , sterilization of milk. Cheese – microbiology and production .</p>		<p>principles, cloning organisms, uptake of DNA (Calcium chloride treatment, electroporation, protoplast fusion, liposome), selection of recombinant clones.</p> <ul style="list-style-type: none"> • Genomic library (construction and identification of desired clone) 	
Dec-2020	<p>Lipids</p> <p>i) Classification simple compounds.</p> <p>ii) Chemistry of fatty acids, unsaturated and saturated fatty acids, triglycerides, saponification alkyl ether phospho glycerides , sterols, cholesterol , protaglandins, glycol lipids.</p> <p>iii) Function of lipids.</p>		<p>Credit 2. Microbiology of Soil : (15) Soil as an environment as a culture medium Microbiota of soil-their activities Brief account of microbial interactions : Definition with examples : Symbiosis, mutualism, commensalism, competition, synergism, satellitism, predation, parasitism with two examples each : i) Microbe-microbe interactions (Protozoa-Algae;</p>	<p>3) Demonstration of : i) Ammonification, ii) Nitrification, iii) Denitrification, iv) Nitrate reduction, v) Sulfate reduction.</p>	<p>Unit :2.</p> <ul style="list-style-type: none"> • Nucleic acid & protein blotting techniques : Southern blotting, western blotting, northern blotting. • Colony hybridization • DNA sequencing (Maxam & Gilbert) • Probes (preparation & labeling) , its uses • PCR 	<p>2) Strain improvement (Physical/chemical agents) for α-amylase production using <i>Aspergillus sp/ Bacillus sp.</i></p> <p>3) Paper / TLC : Chromatographic separation and identification of fermented products. (amino acids, citric acid).</p>



			<p>Lichen)</p> <p>ii) Plant-microbe interactions (Phyllosphere; leg-plant-Rhizobium)</p> <p>iii) Animal-microbe interactions (Rumen; Bioluminescence)</p> <p>Microbiological examination of soil.</p> <p>Major biogeochemical cycles :</p> <p>Carbon (degradation of cellulose, starch, lignin, pectin)</p> <p>nitrogen, phosphorus, sulphur cycle.</p> <p>General account of microbes used as biofertilizers, phosphate solubilizers.</p> <p>Rhizosphere : defination, rhizosphere and non rhizosphere microflora, R: S ratio, interactions between plant and rhizosphere flora .</p>			
Jan-2021	<p>Proteins</p> <p>i) Classification based on properties of solubility & heat. coagulability. Fibrous,</p>		<p>Credit 3.</p> <p>Microbiology of Food : (18)</p> <p>Food as a substrate for microorganisms.</p>	<p>4) Isolation & study of Rhizobium sp from root nodules of leguminous plants.</p>	<p>Unit :3 (15)</p> <ul style="list-style-type: none"> • Gene therapy • Applications of genetic engineering <p>a) Agriculture</p>	<p>4) Separation of proteins using agarose gel electrophoresis.</p>

	<p>globular proteins and functions.</p> <p>ii) Protein structures ; conformation & configuration ,primary structure determination, secondary structure α- helix & β-pleated sheet, tertiary & quaternary structure.</p> <p>iii) Classification of amino acids : based on acid – base properties.</p> <p>iv) Properties of amino acids – solubility, ampholyte, Zwitterions isoelectric pH .</p> <p>v) Peptide bonds – Concepts of biological peptide bond formation, types.</p> <p>vi) Enzymes – Concepts, definition, nature , active site, properties, physico-chemical factors contributing to catalytic efficiency of enzymes</p>		<p>Major groups of bacteria, fungi, yeasts important in food microbiology.</p> <p>Sources of contamination of food, factors affecting kind and number of microorganisms in food.</p> <p>Microbiological examination of food: general and specific methods of examination.</p> <p>Principles of food preservation : Microbiostatic and microbicidal methods : Asepsis, removal of microorganisms, anaerobic conditions, high temp, low temp, drying, chemical preservatives, high osmotic pressure, radiation, smoking.</p> <p>Microbial spoilage of foods.</p>	<p>5) Isolation & study of Azotobacter sp. from soil.</p>	<p>b) Human and animal health c) Industries d) Environment</p>	
Feb -2021	<p>Nucleic acids</p> <p>i) Structure of</p>		<p>Classification of foods by ease of</p>	<p>6) Bacteriological analysis of milk:</p>		<p>5) Bioassay of Penicillin/ Vit B12</p>



	<p>nitrogen bases & base pairing.</p> <p>ii) Structure of nucleosides & nucleotides, ribose, deoxyribose sugars.</p> <p>iii) DNA : properties, forms , structure, function as genetic material. Types of DNA</p> <p>iv) RNA : Structure, function, types (r-RNA, m-RNA, t-RNA)</p> <p>v) Comparative account of DNA & RNA. PH & buffers. pH titration curve, PK value.</p>		<p>spoilage, chemical changes caused by microorganisms in food.</p> <p>Types of spoilage of canned and non canned foods with organisms involved. (tabular form).</p> <p>Food borne diseases: Food infections, indicators of food pathogens associated with food, food intoxication - Staphylococcal, Clostridial Samonella and Mycotoxins..</p>	<p>i) SPC ii) DMC iii) Reductase test.</p> <p>7) Determination of efficiency of pasteurization by phosphatase test.</p> <p>8) Isolation of microorganisms from common food items; curd, bread, pickles, spoilt food.</p> <p>9) Bacteriological examination of food: (SPC, DMC)</p> <p>10) Visit to waste treatment plants, dairies , food industries, agricultural universities.</p>	<ul style="list-style-type: none"> • Ethical issues of genetic engineering • Transposition- Discovery, structure and types of bacterial transposons, mechanism of transposition, spread of antibiotic resistance, mutation due to transposition 	<p>6□) Study tour and report presentation.</p>
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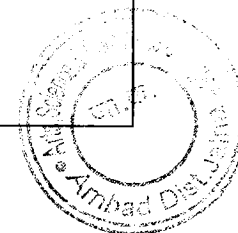
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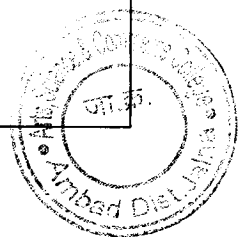
Teacher Name : Aditya S Pawar

Month	Class : FY	Class : FY	Class : SY	Class : SY	Class : TY	Class : TY
	Paper : II (TH)	Paper : (PR) III & VI	Paper : VIII (TH)	Paper : (PR) X	Paper : XV (TH)	Paper : (PR) XIV
	Semester : I	Semester : I & II	Semester : III	Semester : III	Semester : V	Semester : IV
Nov-2020	<p>I. Microbiological Tech and General microbiology</p> <p>Credit – I Stains and dyes.</p> <p>i) Definition : stain, dye, chromogen, chromophore, auxochrome, acidic and basic stains, simple and differential staining. (Gram's and Acid fast staining) , natural stains, mordant, decolourizer, counter stains.</p> <p>ii) Physicochemical basis of staining.</p> <p>iii) Fixatives and fixation of smears.</p> <p>iv) Staining of Fungi.</p> <p>Cultivation of microorganisms.</p> <p>i) Properties of a good culture</p>	<p>3) Demonstration of presence of bacteria from – soil/ water/ air/ milk</p> <p>4) Demonstration of yeast, fungi, actinomycetes, algae, protozoa</p> <p>5) Microscopic examination of bacteria:</p> <p>i) Monochrome staining</p> <p>ii) Negative Staining</p> <p>iii) Gram's Staining</p>	<p>VIII. Immunology Credit 1.</p> <p>Host parasite relationship. (15)</p> <p>Normal flora of human body.</p> <p>Defensive mechanism of the host</p> <p>Non specific factors : physiological barriers, natural cellular & humoral factors.</p> <p>Infection: Definitions: (primary infection, secondary infection, cross infection) Sources of infection.</p>	<p>1) Preparation of media for cultivation of pathogenic bacteria.</p> <p>i) Mannitol salt agar.</p> <p>ii) Wilson and Blair's medium</p> <p>iii) Monsur's medium</p> <p>iv) Lowenstein-Jenson's medium</p> <p>v) Corn- meal agar.</p>	<p>XV Microbial Genetics Unit -1:- (15)</p> <ul style="list-style-type: none"> • DNA/RNA as genetic material, • Molecular properties of DNA – DNA melting, breathing, bending, flexibility, Novel structure of DNA, Linking number, role of major & minor grooves in protein binding.. • History of molecular 	<p>1) Preparation of buffers and reagents.</p> <p>2) Study of enzymes :- α-amylase, caseinase, catalase, deaminase, desulfurase, gelatinase, lecithinase, oxidase.</p>



	<p>medium.</p> <p>ii) Definition, concept, use and types of different culture media . Synthetic, non synthetic, natural, selective, differential, enriched , enrichment, assay, minimal, maintenance, and transport media.</p> <p>iv) Role of Buffers in culture media.</p> <p>v) Media used for cultivation of bacteria , fungi, actinomycetes, yeasts, algae and photosynthetic bacteria.</p>		<p>Modes of transmission of infectious diseases.</p> <p>Process of infection : entry and spread of infection in host body</p> <p>Determining factors in infection</p> <p>Aggressive factors and mechanisms.</p>		<p>biology and genetic engineering</p> <ul style="list-style-type: none"> • DNA as genetic material- experimental proof- Griffith's experiment Hershey_Chase experiment • RNA as genetic material – experimental proof • DNA replication- models of replication, experimental evidence for semiconservative replication, enzymology of replication, mechanism of DNA replication • Post replication modifications (methylation); role of restriction endonuclease, hsd, dam,dem system of methylation 	
Dec-2020	Credit – II Cultivation of anaerobes	6) Hanging drop to	Credit 2. Immunity : (15)	2) Staining techniques i) Acid	Unit :2. • Salient features	3) Effect of pH , temp, substrate

<p>i) Principle and examples. ii) Methods (at least 2) Pure culture techniques i) Development of pure culture ii) Sterilization, aseptic techniques, streak, pour and spread plate methods, single cell isolation. iii) Significance Control of Microbial Growth i) Pattern of Microbial death – concepts. ii) Sterilization by physical methods - High temperature, canning and pasteurization. - Low temperature. - Non ionizing and ionizing radiations. - Bacteriological filters. iii) Sterilization by chemical means; Disinfectants and antiseptics: Effectiveness, mode of action & application. Phenolics, alcohols, halogens, heavy metals, quaternary ammonium compounds, aldehydes. iv) Sterilization using gases sulfur dioxide, ethylene oxide, Beta propiolactone. v) Control of microorganisms using sugars, nitrates, organic acids .</p>	<p>demonstrate bacterial motility 7) Micrometry 8) Qualitative tests for: i) Carbohydrates – Benedict’s test. ii) Protein – Biuret test. iii) Nucleic acid – Diphenylamine(DNA) and orcinol (RNA)tests</p>	<p>Definition and classification Innate / Acquired , Active/Passive, Cellular/Humoral , specific / non specific humoral factors of immunity : complement, interferon. General methods of prophylaxis. Toxoid & immune sera, Principle involved in preparation use of adjuvants. Vaccines : types , administration of vaccines, Immunization schedule. Antigen: Definition, determination of antigenicity , size, chemical nature, susceptibility to tissue enzymes, foreignness, specificity . Types of antigens : species specific antigen, Isoantigen, autoantigen, organ specific antigen , MHC antigen ,</p>	<p>fast staining ii) Blood staining WBC count- total & differential .</p>	<p>of Genetic code • Transcription- structure of RNA polymerase, mechanism of transcription, post transcriptional modification. • Translation- activation of amino acids, charging of t-RNA, Ribosomes, m-RNA, t-RNA a) initiation b) elongation c) termination • Regulation of gene expression at the level of transcription a) lac Operon</p>	<p>concentration on α- amylase activity. 4) Demonstration of nitrate reduction</p>
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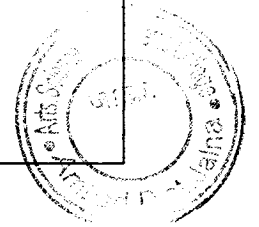
			<p>Heterogenetic (Heterophile) antigen , antigens in relation to bacterial cell.</p> <p>Antibody : Immunoglobulins : structure & classes, Types of antibodies : antitoxin , precipitin, agglutinin, bacteriolysin, bacteriocidin, bacteriotropin, complement fixing, neutralizing.</p>			
Jan-2021	<p>Credit - III Structural Organization of microorganisms. A] Fundamental categories of microorganisms. i) Procaryotic & Eucaryotic cell concepts and differential account</p>	<p>Paper VII Practical <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/> Structural staining – <input type="checkbox"/><input type="checkbox"/> Bacterial flagella by Patel, Kulkarni and Gaikwad method <input type="checkbox"/> Capsule staining – Maneval’s method. <input type="checkbox"/> Cell-Wall staining- Chance’s method. <input type="checkbox"/> Spore staining – Schaefer & Fulton’s method. <input type="checkbox"/> Lipid (PHB) granule staining- Burdon’s method. <input type="checkbox"/> Metachromatic granule staining- Albert and Neusser’s method.</p>	<p>[0:07 pm, 09/03/2022] Aditya Pawar 2: Credit 3. (15)</p> <p>Immune responses : Primary & secondary responses. Fate of antigens in tissues</p> <p>Production of antibodies : organs & cells involved, monoclonal Antibodies, Regulation of antibody production (genetic control). Factors influencing antibody production: Cellular immune response – organs &</p>	<p>3) RBC count by haemocytometer. 4) Isolation & study of normal flora of skin, nose, throat. 5) Agglutination tests: (slide tests) i) Blood grouping ii) Widal test iii) RPR test.</p>	<p>Bacterial Recombinations: • Transformation- discovery, nature of transforming principle, competence factors, mechanism of transformation • Conjugation- discovery, structure and properties of plasmids (F, R, Col.,) Plasmid incompatibility, process of conjugation-(F, HFr, and F</p>	<p>5) Demonstration of decarboxylation of amino acid. 6) Isolation of photosynthetic bacteria by column method</p>

			cells involved, characteristics &		mediated transfers) • Transduction – mechanism of generalized and specialized transduction, Abortive transduction, lysogenic conversion.	
Feb - 2021	<p>B] Role of microorganisms:</p> <p>1.1 In agriculture : As biofertilizers, bioinsecticides, in soil improvement (texture , water holding capacity) as geochemical agents, microbe plant interactions (phyllosphere, rhizosphere, mycorrhizal and nodule formation). Plant diseases : list of common plant diseases with their causative agents.</p> <p>1.2 In human and animal health : list of common bacterial, rickettsial , fungal and viral diseases.(with causative agents) in human beings, role of normal flora of human body, antibiotics, vaccines and antisera.</p> <p>1.3 In industries : list of microbial products (and</p>	<p>□ Preparation of culture media.</p> <p>i) Nutrient broth and agar</p> <p>ii) MacConkeys broth and agar..</p> <p>iii) Sugar media</p> <p>iv) Potato dextrose agar</p> <p>v) Blood agar</p> <p>vi) Photosynthetic bacterial growth medium</p>	<p>types of T cells.</p> <p>Antigen – Antibody reactions:</p> <p>General features of Antigen- Antibody reactions</p> <p>Mechanisms , methods & applications of:</p> <p>i) Agglutination:</p> <p>ii) Precipitation</p> <p>iii) Complement fixation</p> <p>iv) Neutralization</p> <p>v) Immunofluorescence</p> <p>vi) ELISA</p>	<p>6) Precipitation test:</p> <p>i) Single radial immunodiffusion</p> <p>ii) Immuno electrophoresis.</p>	<p>Unit- 3 : Mutations (15)</p> <p>o Spontaneous mutations (replica plating , fluctuation test)</p> <p>Base pair substitutions and frame shift mutations.</p> <p>Mutagenesis by Physical and chemical agents.</p> <p>- UVrays, Xrays , Base analogues, Agents modifying purines and pyrimidines, Nitrous acid, DMS, EMS, EES, Agents producing</p>	<p>7) Primary screening for :</p> <p>i) Starch hydrolyzers.</p> <p>ii) Organic acid producers.</p> <p>iii) Antibiotic producers.</p>



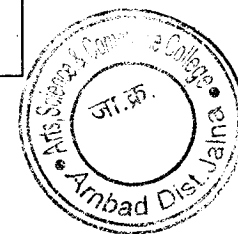
	<p>producers) produced on industrial scale, role of contaminants.</p> <p>1.4 In food processing : list of common fermented food & milk products with their representative organisms. Food spoilage, list of organisms causing changes in texture, colour, aroma, taste & nutritional value of the food products. List of food poisoning & food infection causing microorganisms.</p>				<p>distortions in DNA --</p> <p>Proflavin, Acridine orange , Intercalating agents (Ethidium bromide) .</p> <ul style="list-style-type: none"> • Suppressions – true reversion versus genetic suppression (intragenic and intergenic suppressions) • Site directed mutagenesis 	
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Month	Class : FY	Class : FY	Class : SY	Class : SY	Class : SY	Class : SY
	Paper : IV (TH)	Paper : (PR) III &VI	Paper : XII(TH)	Paper : (PR) XVII	Paper : XX (TH)	Paper : (PR) XXI
	Semester : II	Semester : I &II	Semester : IV	Semester : V	Semester : VI	Semester : VI
Apr-2021	<p>IV. cytology and general Microbiology</p> <p>Unit – 1 : 1. Bacterial morphology and ultra structure.</p> <p>1.1 Cytology of a typical bacterial cell.</p> <p>i) Morphology – size and arrangement of bacterial cells.</p> <p>ii) Structure ,chemical compositions and functions of :</p> <p>1. Capsule and slime layer</p> <p>2. Cell wall : Gram positive and Gram negative bacteria</p> <p>3. Unit membrane</p> <p>4. Flagella : Arrangement, mechanism of flagellar movement, Chemotaxis, phototaxis, Magnetotaxis.</p> <p>5. Pili</p> <p>6. Ribosomes.</p> <p>7. Nuclear material, Mesosome</p> <p>8. Reserved food</p>		<p>XII Clinical Microbiology Credit 1.</p> <p>Human Diseases (18)</p> <p>Classification, habitat, morphology, staining reactions, cultural characters, biochemical characters, antigenic structure, pathogenesis. Laboratory diagnosis, epidemiology, prophylaxis, chemotherapy wrt. Diseases caused by: Bacteria</p>	<p>1) Study of pathogens:</p> <p>i) Staphylococcus aureus</p> <p>ii) Salmonella typhi</p> <p>iii) Vibrio cholerae</p>	<p>XX Industrial Microbiology</p> <p>Unit :1.</p> <ul style="list-style-type: none"> • Design of typical fermenter, types of fermenters (Single, multiple, recycle, airlift) • Screening methods: primary, secondary. • Strain improvement methods , increasing product yield. • Preservation methods (lyophilization, freezing, mineral oil, soil stocks) • Inoculum development 	<p>1) Determination of one step growth curve of bacteriophage.</p> <p>2) Replica plating for isolation of streptomycin resistance spontaneous mutant of <i>E. coli</i>.</p>



	<p>material: Poly beta hydroxy butyric acid granules, glycogen and polyphosphate granules.</p> <p>1.2 Bacterial cell division</p> <p>i) Binary fission</p>					
May-2021	<p>Unit – 2 Nutritional Requirements</p> <p>i) Concept.</p> <p>ii) Common nutritional requirements – Energy sources, C, N, P, O, S, micronutrients, growth factors, water etc.</p> <p>iii) Classification on the basis of carbon and energy</p> <p>Bacterial growth</p> <p>i) Concept of Growth</p> <p>ii) Definition</p> <p>iii) Bacterial growth curve</p> <p>iv) Phases of growth</p> <p>v) Mathematics of growth</p> <p>vi) Diauxy</p> <p>vii) Factors influencing bacterial growth (temp, pH, oxygen and nutrients).</p> <p>viii) Synchronous</p>	<p>Credit 2 (16)</p> <p>Viruses</p> <p>i) Staphylococcus aureus</p> <p>ii) Pneumococcus</p> <p>iii) Mycobacterium tuberculosis</p> <p>iv) Salmonella typhi</p> <p>v) Vibrio cholerae</p> <p>vi) Treponema pallidum</p> <p>vii) Leptospirillum</p> <p>viii) Leishmania.</p> <p>i) HIV</p> <p>ii) Hepatitis virus</p> <p>iii) H1N1</p> <p>iv) SARS</p> <p>v) Chikungunya</p>	<p>2) Isolation & Identification of Candida albicans</p> <p>3) Demonstration of haemolysin & coagulase tests.</p>	<ul style="list-style-type: none"> • Fermentation media : raw materials , media formulation, pretreatment, sterilization , contamination and its control, inoculum media, buffers, antifoam agents and precursors. • Scale up of fermentation • Phage contamination and control • Down stream processing 	<p>3) Isolation of lac mutants of E.coli. (Lac) by UV induced mutagenesis and chemical mutagens.</p> <p>4) UV damage and photoreactivation.</p>	

	<p>growth ix) Continuous culture x) Measurement of bacterial growth</p>					
Jun-2021	<p>Unit – 3 Microbial Physiology 1. Endospore – types, sporulating bacteria, architecture of endospore, sporulation process, germination process. 2. Uptake of nutrients i) Passive diffusion ii) Facilitated diffusion iii) Active transport mechanism. iv) Group translocation vi) Uptake of amino acids and metals 3. Anaerobic respiration : NO₃ , SO₄ and CO₂ as electron acceptors. 4. Bacterial photosynthesis : i) Photosynthetic bacteria, ii) Photopigments and associated carriers, iii) Photosynthetic apparatus and its mechanism iv) Cyclic and non cyclic photophosphorylation ,</p>		<p>vi) Oncogenic viruses. Credit 3. (a) Protozoa i) Entamoeba histolytica ii) Plasmodium spp (b) Fungi (c) Typhus fever. i) Candida albicans</p>		<p>Unit : 2 • Antibiotic fermentations : Penicillin. • Vitamin fermentation : Vit. B-12 • Amino acid fermentation : L-lysine (direct and indirect) • Organic Solvent : Ethyl alcohol fermentation • Organic acid fermentation : Citric acid</p>	<p>5) Study of transformation in <i>E. Coli.</i>, i) Preparation of competent <i>E. Coli.</i> ii) Enumeration of transformed cells. iii) Determination of plasmid transfer efficiency.</p>



	<p>v) Calvin cycle, and reductive carboxylic acid cycle for CO₂ fixation.</p> <p>vi) Differences between bacterial and plant photosynthesis.</p>					
Jul -2021	<p>Unit – 4 Advances in Microbiology</p> <p>a) Genetic engineering.</p> <p>b) Bioinformatics</p> <p>c) Nano biotechnology</p> <p>d) Bioaugmentation</p> <p>e) Biostatistics</p> <p>f) Enzymes and cell immobilization</p>			<p>4) Determination of antibiotic resistance of bacteria.</p> <p>5) Detection of specific antigen by ELISA (demonstration – Viral Disease)</p> <p>6) Visits to related labs, hospitals & institutes.</p>	<p>Unit :3</p> <ul style="list-style-type: none"> • Enzymes- α – amylase (bacterial & fungal) • Bakers yeast production • Vaccines – Genetic recombinant vaccines • Biofertilizers – (Azo, Rhizo, and PSB) • CH₄ fermentation • Biopesticide production 	<p>6) Study of conjugation in <i>E.Coli</i>. (plate method.)</p> <p>7) Demonstration : Polymerase chain Reaction (PCR)</p>

HOD
Kharat

Mr. Milind B. Kharat.

Principal

Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department ofPhysical Education.....

	Class: BAFY	Class: BASY	Class: BATY
Month	Paper: I (101) Philosophical, Sociological Foundations and History of Physical Education.	Paper: IV (201) Health Education and Recreation in Physical Education.	Paper: VII (301) Ancient and Modern History of Physical Education and Sports. Paper: VIII (302) (Main) Sports Psychology and Management in Physical Education.
	Semester: I	Semester: III	Semester: V
Nov-2020	Unit-I: Philosophical Foundations: (a) Meaning and Definition of Philosophy of Physical Education. (b) Component of Philosophy its Application in the field of Physical Education. (c) Traditional and Modern Philosophies their implication in the program of Education. (d) Philosophies of Education applied to Physical Education. (I) Idealism (II) Naturalism (III) Realism (IV) Humanism Unit Test-I	Unit-I: Health Education: (a) Concept and Objectives of Physical Education. (b) Importance of Health Education. (c) Principles of Health Education. Unit-II: Contemporary Health Problems: (a) Abuse of Alcohol and its Effects on Individual, Family and Community. (b) Eating Habits and its Effect on Health. (c) Effect of Drugs and Tobacco on Sports Person. Unit Test – I	Unit-I: Introduction of Physical Education in Ancient India: (a) Vedic Period (b) Epic Period (c) Buddhist Period Unit-II: Physical Education in The State of Sparta and Athens. (a) Physical Education in Ancient Rome. (b) Physical Education and Moral Education. (c) Physical Education in Mughal Period. Unit Test -I Unit-III: Physical Education in India after Independence: (a) Physical Education in British Period. (b) Ancient Olympic Games, Historical Background. (c) Modern Olympic Games.



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Dec-2020	<p>Unit-II: Sociological Foundations:</p> <ul style="list-style-type: none"> (a) Sociological Basis of Physical Education. (b) Social Environment for Development of Individual Personality. (c) Socialization and Sports. (d) Social Nature and Social Recognition. <p>Unit-III: Integration of Physical Education with other Faculties:</p> <ul style="list-style-type: none"> (a) Integrations of Physical Education with History. (b) Integration of Physical Education with Psychology. (c) Integration of Physical Education with Sociology. <p style="text-align: center;">Unit Test-II</p>	<p>Unit-III: Family and Health Education:</p> <ul style="list-style-type: none"> (a) Meaning Functions and Importance of Family as a Social Institution. (b) Role of Parents in Child Health. (c) Health Care During Disasters. 	<p>Unit-IV: Government Bodies and Policies in Physical Education:</p> <ul style="list-style-type: none"> (a) Nature and Educational system in Modern India. (b) Education and Physical Education Policies in India. (c) Central Advisory Board of Physical Education. <p style="text-align: center;">Unit Test-II</p> <p>Unit-V: Scheme and Awards Related to Physical Education and sports:</p> <ul style="list-style-type: none"> (a) Arjuna Award (b) Dronacharya Award (c) Rajiv Gandhi Khelratna Award <p>Unit-VI: Institutions of Physical Education in India:</p> <ul style="list-style-type: none"> (a) Y.M.C.A College of Physical Education of Madras. (b) LNIPE Gwalior and NSNIS Patiyala. (c) HVPM Amravati. <p style="text-align: center;">Unit Test-III</p>
Jan-2021	<p>Unit-IV: Nature of Physical Education System:</p> <ul style="list-style-type: none"> (a) Ancient India and Mediaeval India. (b) Physical Education in Ancient Civilization with reference to <ul style="list-style-type: none"> (I) India (II) Greece (III) Rome (IV) Egypt 	<p>Unit-IV: Recreation in Physical Education and Sports:</p> <ul style="list-style-type: none"> (a) Meaning, Need and Scope of Recreation. (b) Principles of Recreation. (c) Types of Recreation . <p style="text-align: center;">Unit Test-II</p>	<p>Paper: VIII (302) Unit-I: Psychology in Physical Education and Sports:</p> <ul style="list-style-type: none"> (a) Meaning, Nature and Scope of Sport Psychology. (b) Importance of Psychology in Sports. (c) Limitation of Psychology in Education. <p>Unit-II: Growth and Development:</p> <ul style="list-style-type: none"> (a) General Nature of Growth and Development. (b) Age and Behavior Characteristics.

	<p>(c) Development of Physical Education with special reference to</p> <p>(I) U.S.S.R (II) U.S.A. (III) Germany</p> <p>Unit-V: Physical Education in India during 20th Century.</p> <p>(a) Meaning, Definitions, Aims and Objectives of Physical Education. (b) Physical Education Training Institutions. (c) Physical Education after Independence.</p> <p>(I) Central Advisory Board of Physical Education (II) All India Council of Sports (AICS) (III) Netaji Subhash National Institute of Sports (NSNIS) (IV) Laxmibai National Institute of Physical Education (LNIPE) (V) Sports Authority of India (SAI)</p> <p>Unit Test-III</p>		<p>(c) Physical, Emotional and Social Development.</p> <p>Unit Test-I</p> <p>Unit-III: Motivation:</p> <p>(a) Meaning, Need and its Role in Physical Education. (b) Techniques of Motivation. (c) Psychological Factor Influencing Motivation.</p>
<p>Feb -2021</p>	<p>Unit-VI: Historical Development of Ancient Olympic Games and Modern Olympic Games:</p> <p>(a) Philosophy of Olympism and its Impact on Sports Movements in India. (b) Current Trends in Physical Education</p> <p>(i) Role of Federations and Associations. (ii) Courses and Coaching Centres (iii) Policies of Central and State Governments for Physical Education and Sports.</p> <p>(c) Movements of Akhada and Vyayam Shalas in Maharashtra.</p>	<p>Unit -V: Planning a Programme of Recreation:</p> <p>(a) Urban Recreation Programme. (b) Rural Recreation Programme. (c) Industrial Recreation Programme.</p> <p>Unit-VI: Agencies Promoting Recreation:</p> <p>(a) Facilities of Recreation . (b) Organization of Recreation.</p> <p>Unit Test -III</p>	<p>Unit-IV: Management in Physical Education:</p> <p>(a) Meaning, Definition and Philosophy of Management. (b) Aims, Objectives and Principles of Management. (c) Functions of Management.</p> <p>Unit Test-II</p> <p>Unit-V: Teaching methods in Physical Education:</p> <p>(a) Meaning, Types and Factors Affecting. (b) Presentation Techniques Meaning and Factors. (c) Teaching Aids in Physical Education.</p> <p>Unit-VI: Facilities and Equipments:</p> <p>(a) Care and Maintenance and Equipments. (b) Principles of Purchasing Equipments. (c) Office Management, Meaning and Principles.</p>

Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
 Annual Teaching Plan (Year: 2020-2021)

Month	Class: BAFY	Class: BASY	Class: BATY
	<p>Paper: II (102) Principles and Recent Development of Physical Education.</p> <p>Paper: III (103) Practical Physical Education.</p>	<p>Paper: V (202) Officiating, Coaching and Training Methods in Physical Education.</p> <p>Paper: VI (203) Practical Physical Education.</p>	<p>Paper: IX (303) Organization, Administration and Supervision in Physical Education Youth Welfare and Youth Services.</p> <p>Paper: X (304) (Main) Anatomy, Physiology and Kinesiology of Physical Education.</p> <p>Paper: XI (305) Practical Physical Education.</p> <p>Paper: XII (306) Practical (Main) Physical Education</p>
	Semester: II	Semester: IV	Semester: VI
Apr-2021	<p>Unit-I: Principles of Physical Education:</p> <p>(a) Biological Principles of Physical Education.</p> <p>(b) Sex Differences.</p> <p>(c) Principles of Exercise.</p> <p>(d) Body Types.</p> <p>Unit-II: Sociological Principles of Physical Education:</p> <p>(a) Social Values and Development of Traits.</p> <p>(b) Social Welfare.</p> <p>(c) Physical Education as Sociological Agency.</p> <p style="text-align: center;">Unit Test-I</p>	<p>Unit-I: Officiating of Games and Sports:</p> <p>(a) Meaning and Definition of Officiating .</p> <p>(b) Importance of Officiating in Physical Education and Sports.</p> <p>(c) Qualities of Good Officials.</p> <p>(d) Duties and Responsibilities of Official.</p> <p>(e) Rules and Marking System of Indian and Foreign.</p> <p>Unit Test-I</p> <p>Unit –II: Coaching of games and Sports:</p> <p>(a) Meaning and Definition of Coaching.</p> <p>(b) Importance of Coaching in Games and Sports.</p> <p>(c) Qualities of Good Coach.</p> <p>(d) Duties and Responsibilities of Coaches.</p> <p>Unit Test-II</p>	<p>Unit-I: Organization, Administration and Supervision:</p> <p>(a) Meaning, Scope of Organization and Administration.</p> <p>(b) Objectives of Organization and Administration.</p> <p>(c) Guiding.</p> <p>Unit-II: Organizing and Conducting Tournaments:</p> <p>(a) Different Types of Tournaments and Competition.</p> <p>(b) Knock Out League Tournament.</p> <p>(c) Merits and Demerits of Tournaments.</p> <p>Unit Test-I</p> <p>Unit-III: Intramurals Programme:</p> <p>(a) Need and Importance.</p> <p>(b) Objectives of Intramurals Programme.</p> <p>(c) Methods of Fixture.</p>

<p style="text-align: center;">May-2021</p>	<p>Unit-III: Classification of Children:</p> <p>(a) Psychological Bases of Classification.</p> <p>(b) Biological Characteristics of Children.</p> <p>(c) Physiological and Sociological Characteristics of Children.</p> <p>Unit-IV: Recent Development of Physical Education:</p> <p>(a) Status of Physical Education and Sports in Educational Institutions.</p> <p>(b) Physical Education at Pre-Primary and Primary School Level.</p> <p>(c) Physical Education at Secondary and Higher Secondary School Level.</p> <p>(d) Physical Education at University at Professional Level.</p> <p style="text-align: center;">Unit Test-II</p>	<p>Unit-III: Origine and Development of Games and Sports:</p> <p>(a) Fundamental and Advanced Skills of Indian Games.</p> <p>(I) Kabaddi</p> <p>(II) Kho-Kho</p> <p>(III) Wrestling</p> <p>(I) Ball Badminton</p> <p>Unit-IV :Fundamental and Advance Skills of Foreign Games:</p> <p>(II) (a) Volley Ball</p> <p>(III) (b) Soft Ball</p> <p>(IV) (c) Badminton</p> <p>(V) (d) Table Tennis</p> <p style="text-align: center;">Unit Test-III</p>	<p>Unit-IV: Extramural Programme:</p> <p>(a) Need and Importance.</p> <p>(b) Selection and Coaching of Team.</p> <p>(c) Emotional Development of the Students.</p> <p style="text-align: center;">Unit Test-II</p> <p>Unit-V: Supervision in Physical Education:</p> <p>(a) Meaning, Purpose and Scope of Supervision.</p> <p>(b) Objectives and Features.</p> <p>(c) Qualities of Supervisor.</p> <p>Unit-VI: Youth Welfare and Youth Services:</p> <p>(a) Concept of Youth Welfare and Youth Services.</p> <p>(b) Youth Organization in India.</p> <p>(c) Social Services.</p> <p style="text-align: center;">Unit Test-III</p> <p>Paper: X (304) Unit-I: Introduction of Anatomy:</p> <p>(a) Meaning, Need and Importance of Anatomy.</p> <p>(b) Definition of Cell, Meaning in Structure.</p> <p>(c) Blood Composition, Function and Circulation.</p>
<p style="text-align: center;">Jun-2021</p>	<p>Unit-V: Sports and Game Organization in India:</p> <p>(a) District Level Organizations.</p> <p>(b) State Level Organizations.</p> <p>(c) National Level Organizations.</p> <p>(d) International Level Organizations.</p> <p>Unit-VI: Role of Association and Sports Bodies.</p>	<p>Unit-V: Training Methods in Games and Sports :</p> <p>(a) Need of Sports Training.</p> <p>(b) Principles of Sports Training.</p> <p>(c) Factors Affecting the Sports Training.</p> <p>(d) Procedure and planning of Specific Training.</p> <p>Unit-VI : Types of Training Methods in Games and Sports:</p> <p>(a) Weight Training.</p> <p>(b) Circuit Training.</p>	<p>Unit-II: Skeletal System:</p> <p>(a) Types of Bones and its Function.</p> <p>(b) Major Bones of the Body and there Location.</p> <p>(c) Tissue Definition, Structure, Function and Classification.</p> <p style="text-align: center;">Unit Test-I</p> <p>Unit-III: Introduction to Physiology:</p> <p>(a) Meaning, Need and Importance of</p>

	<p>(a) Indian Olympic Association (IOA). (b) International Olympic Association (IOA). (c) Sports Authority of India (SAI). (d) Central Advisory Board of Physical Education and Recreation.</p> <p style="text-align: center;">Unit Test-III</p>	<p>(c) Fartlek Training. (d) Interval Training.</p> <p style="text-align: center;">Unit Test-IV</p>	<p>Physiology. (b) Essential Properties of Living Organism. (c) Vital Capacity and its Measurement.</p> <p>Unit-IV: Muscular System: (a) Meaning, Structure Function of Skeletal Muscles. (b) Major Muscles of the Body. (c) Location of Major Muscles.</p> <p style="text-align: center;">Unit Test-II</p> <p>Unit-V: Respiratory System: (a) Structure of Respiratory Organs. (b) Function of Brain. (c) Effect of Exercise on Repertory System.</p>
<p style="text-align: center;">Jul -2021</p>	<p>Practical Physical Education: Track and Field Events</p> <p>(a) 100 mtrs. Sprint. (b) Long Jump. (c) Shot Put.</p> <p>Opted Game</p> <p>(a) Kabaddi</p> <p>Introduction History of the Game Fundamental Skills of the Game Tactics of the Game Rules and Regulations of the Games Ground Marking System Record Book</p>	<p>Practical Physical Education: Track and Field Events</p> <p>(a) 200 mtrs. Running. (b) Triple Jump. (c) Discus Throw.</p> <p>Opted Game (a) Volley Ball</p> <p>Introduction History of the Game Fundamental Skills of the Game Tactics of the Game Rules and Regulations of the Games Ground Marking System Record Book</p>	<p>Unit-VI: Introduction to Kinesiology: (a) Definition and Meaning of Kinesiology. (b) Fundamental and Applied Kinesiology. (c) Need and Importance of Kinesiology.</p> <p style="text-align: center;">Unit Test-III</p> <p>Practical Physical Education: Track and Field Events</p> <p>(a) 400 mtrs. Running. (b) High Jump. (c) Javelin Throw. (d)</p> <p>Opted Game</p> <p>(a) Football Introduction History of the Game Fundamental Skills of the Game Tactics of the Game Rules and Regulations of the Games Ground Marking System Record Book</p> <p>Practical Physical Education: Track and Field Events</p>

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| | | | <ul style="list-style-type: none">(a) 800 mtrs. Running(b) Officiating and Coaching and Rules of the Games.(c) Yogasanas.<ul style="list-style-type: none">(I) Tradasanas(II) Chakrasanas(III) Vajrasanas(IV) Padmasanas(V) Hallsanas(VI) Shawasanas(d) Pranayama and Surya Namaskar.<ul style="list-style-type: none">IntroductionHistory of the GameFundamental Skills of the GameTactics of the GameRules and Regulations of the GamesGround Marking SystemRecord Book |
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Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna

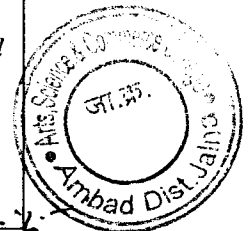
Annual Teaching Plan (Year: 2020-2021)

Prof: Dr F.S.Katara

Department: Mathematics

Month	Class: F.Y Bsc	Class: S.Y.Bsc	Class: T.Y.Bsc	Class: T.Y Bsc
	Paper: Diff. Cal. 101	Paper: Number Theory 301	Paper: Real Ana - 501	Paper: Abst. Alg.-502
	Semester: I	Semester: III	Semester: V	Semester: V
Nov 2020	Prerequisite: Functions-Domain & Range of a function, dependent & independent variables	Divisibility Theory in integers: The division Algorithm gcd, The Euclidean algorithm, =	Prerequisite Set & Elements, Operation on sets	Defination, of Group Example of group
Dec 2020	Limit & Continuity -Limit of a function, LHL&RHL theorems, discontinuity	the Diophantine equation $ax+by=c$ Primes and their Distribution: The fundamental Theorem of Arithmetic	Functions Functions, Real valued function, Equivalence, Countability, Real numbers, Least Uppers Bounds	Defination, of Subgroup example of subgroup
Jan 2021	Differentiation: Derivative of a various function, derived function Successive Differentiation: Higher order derivatives, Leibnitz's theorem	The theory of Congruence: The properties of congruence, Linear congruence.	Sequences of Real Numbers: Definition of sequence and subsequence, Limit of sequence, Convergent, Divergent, Monotonic, Bounded Sequence, Limit superior inferior Cauchy Sequence [1]	Defination of Normal & Quatient subgroup Homomorphism & Automorphism, Counting technology
Feb 2021	Mean Value Theorem : Rolle's Langrage's Theorem CMVT Partial Differentiation partial derivatives, Euler's theorem Differential Operators : Point Function divergence, curl, & gradient	Fermats Theorem Fermat's factorization Theorem, The little Theorem, Wilsons Theorem Number Theoretic Functions The function and σ , The Mobious inversion formula	Series of Real Numbers: Convergence & Divergence, Alternating Series, Conditional Series, Test of Absolute Convergence Jacobians Definition, Function of function, Jacobian of implicit function Condition for Jacobian to vanish	Defination and example of ring, Homomorphism, ideal, Quotient ring Euclidean ring, Polynimial ring

Matsyodari Shikshan Sanstha's



Katara R.S.

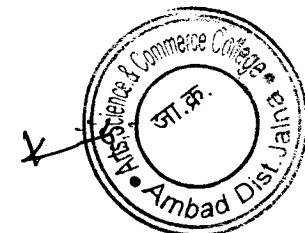
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2016 -2017)

Prof. Dr. R.S.Katare

Department: Mathematics

Month	Class: F.Y Bsc	Class: S.Y Bsc	Class: S.Y.Bsc	Class: T.Y Bsc
	Paper: Inte. Cal. 201	Paper: Num. Ana-401	Paper: 601	Paper: Abst. Algb.-I 602
	Semester: II	Semester: IV	Semester: VI	Semester: VI
Apr 2021	Methods Of Integration – Reduction Formulae [1]	Solutiopn of Algebraic & Transcendental Equation <i>Bisection, Newtons</i> –Raphson method	Limits In Metric Spaces <i>Metric Spaces, Limits in metric space</i>	Vector Spaces And Module Intriduction
May 2021	Integration Of Algebraic Rational Function – Case of non repeated linear factors, Case of non repeated linear factors or repeated linear factors, Case of linear or quadratic non repeated factors	Interpolation :Forward, Backward, Central differences Langranges. Hermite interpolation formula	Continuous Function On Metric Spaces <i>Function Continuous on metric spaces, Open Set, Close Set.</i>	<i>Elementary basic concepts</i>
June 2021	Integration Of Trigonometric Function – Integration of $\sin^n x$, $\cos^n x$ & Reduction formulae for integration of $\sin^n x$, $\cos^n x$	Curve Fitting and Approximation :Least Square curve approximation of curve, Chebyshev Polynomial, Economization of power series	Connectedness, Completeness And Compactness Open Bounded & totally bounded set, metric space,	Linear Independence and basis,
July 2021	Definite Integral As The Limit Of a Sum <i>Introduction, Fundamental Theorem</i> Area Of Plane Region – Area of a region bounded by a curved, x-axes, two ordinates [1].	Solution of linear system of equation : <i>discontinuity Direct, Gaussian elimination, iterative methods, eigen value.</i> Numerical solution of ODE : interpretation Taylors series method, picards method, Rung Kutta methcd	Calculus <i>Set of measure zero, Definition of Riemann Integral, Fundamental Theorem of Calculus</i> Fourier Series Introduction.	Dual Space, Inner Product Space, Modules, submodule



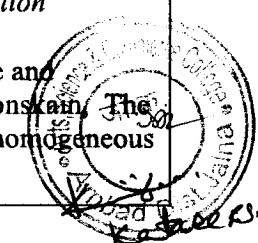
Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

PROF: Lakade N. D.

Department: Mathematics

Month	Class: F.Y Bsc	Class: S.Y.Bsc	Class: S.Y.Bsc	Class: T.Y Bsc
	Paper: Diff.Equ. 102	Paper: Integral Transform 302	Paper: Mechanics-I 303	Paper: ODE-I 505
	Semester: I	Semester: III	Semester: III	Semester: V
Nov 2020	Prerequisite- ODE Order & Degree of DE Equations of The First Order & First Degree - Exact <i>Differential Equation, Linear Equation</i>	Beta and Gamma Functions: <i>Euler's Integral –Beta and Gamma functions</i> <i>Relation between Beta & Gamma functions</i>	Force acting on Particle: <i>particle, Rigid body, The force as a vector, Equilibrium, An axiom for Equilibrium of two forces, Statics</i>	Prerequisite <i>Introduction, Functions, Polynomials Complex Series, Exponential Function</i> <i>Determinants</i>
Dec 2020	Linear Equations with constant coefficient – Complementary function & Particular Integral of varies function	Laplace Transform: <i>Piecewise or sectional continuity,</i> <i>Function of exponential order,</i> <i>Laplace transform Some standard results</i>	The algebraic sum resolved parts of two forces, To find magnitude & direction of the Resultant of any number of coplanar forces acting at a point, Resultant of parallel forces. Forces	Linear Equation of First Order <i>Introduction, Differential Equation, Problem associated with differential equation,</i> <i>Linear equation with first order</i>
Jan 2021	Linear Equations With Variable Coefficient - The Homogenous Linear Equation, Method of Finding Solution, the Symbolic Function	Inverse Laplace Transform: <i>Definition, Null function, Uniqueness of inverse LT</i> <i>,Partial fractions, The complex inversion formula</i>	Equilibrium of Forces acting on a Particle : Triangle law of force and converse , Polygon of forces Lamis theorem , Condition Of equilibrium Force acting on a Particle,	<i>The equation $+ay=0$, The equation $+ay=b(x)$,The general Linear equation with first order[1]</i>
Feb 2021	Exact Differential Equations & Equation of Particular Forms - Exact Differentiation equation of the form $d^*y / dx^* = f(y)$. Ordinary Differential Equations With More Than Two Variable	Applications to Differential Equations: <i>Differential Equation,</i> <i>Notations</i> <i>Problem related to ODE only.</i> Fourier Transform: <i>Finite & Infinite Fourier sine & cosine transform of F(x)</i>	Force acting on A Rigid Body : Introduction Moment Of a force , Sum of vector moment of two like parallel , forces, Couples, Trigonetrical Theorem, Condition of equilibrium of two forces acting on a rigid body . Centre Of Gravity : Centroid of weight points, Centre of gravity, Centre of gravity of some	Linear Equation with Constant Coefficient <i>Introduction, The second Order Homogeneous equation, IVP</i> <i>second Order equation</i> Linear Dependence and Independence, Wronskian, The second Order Nonhomogeneous equation



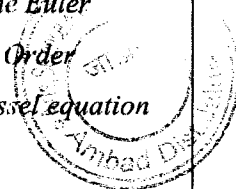
	Partial differential equation	<i>Relation between Fourier transform and Laplace transform</i>	uniform bodies	
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Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020 -21)

PROF: Lakade N. D .

Department: Mathematics

Month	Class:	Class:	Class:	Class:
	Paper: Geometry 202	Paper: PDE-402	Paper: Mechanics-403	Paper: ODE -II 604
	Semester: II	Semester: IV	Semester: IV	Semester: VI
Apr 2021	The Plane: ReEquation of first degree in x,y,z System of Plane,	Prerequisites: Derivation of formation of pde by eliminating arbitrary constant & arbitrary constant	Kinematics and Dynamics of a particle in two Dimensions : Defination, areal speed and areal velocity, tangential and normal component of v, acc.	Linear Equation With Variable Coefficient : Introduction., Initial valued problem for the homogenous equation
May 2021	Right line Function – Equation of line, angle between line and plane, Distance between two straight line ,symmetrical and unsymmetrical form of c line	PDE of order one: Langranges linear pde, geometrical interpretation of langranges linear equation of form $Pp+Qq=R$	Kinetics of a particle : Newtons laws of motion, Linear Momentum, Angular Momentum, Work, Energy,	Solution of homogenous equation, The Wronskian and linear independence Reduction of the order of a homogenous equation
June 2021	Sphere : Equation of sphere intersection of two sphere, equation of circle equation of a tangent plane	Non linear PDE : Complete, general, singular particular ,special integral, Charpit method, standard form, jacobis method	Motion Of a Projectile And Motion in a Resisting Medium Motion Rectilinear Motion Under Gravity , Projectile	The nonhomogenous equation , Homogenous equation with analytic coefficient , The Legendre equation
July 2021	Cone, Cylinder : The right circular conr equation of rcc the right circular cylinder The Conicoid– Central Conicoid, intersection of line and conicoid	Linear PDE : Complete, Homogenous & Nonhomogenous linear pde, equation reduces to linear form with constant coefficient PDE of Second Order: Monges method to solve equation $Rr+Ss+Tt=V$	Central Orbit : Definition Areal Velocity In Central Orbit Diff. equation of central orbit Apse, Law of Forces , Pedal equation of Some Curves	Linear Equation With Regular Singular Point The Euler Equation, Second Order equation The Bessel equation



Lakade N. D.
Katase R. S.

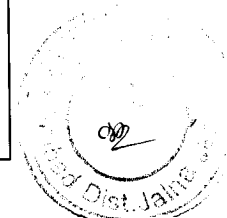
Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: ~~2020-21~~ 2020-21)

Department of Botany

Name: Dr. Mhaske S.U.

MONTH	Class: FY	Class: FY	Class: SY	Class: TY
	Paper: I (TH)	Paper: III (PR)	Paper: XI (PR)	Paper: XIX (PR)
	Semester: I	Semester: I	Semester: III	Semester: V
Nov 2020	Diversity Of Cryptogams – I Unit – 1 Viruses: General characters, classification based on host, economic importance, TMV–structure and Multiplication Mycoplasma: General characters Bacteria: General characters, ultra structure, classification based on shape, reproduction, economic importance	Diversity Of Cryptogams – I 1. Study of simple and compound microscope 2. Virus: Tobacco Mosaic Virus 3. Gram staining in bacteria, forms of Bacteria	Taxonomy of Angiosperms Study of locally available plants of the following families : Annonaceae	1. Study of the cell structure from onion leaf or <i>Tradescantia</i> leaf 2. Preparation of cytological (AA, FAA etc.) fixatives and stains (acetocarmine, aceto-orcein). 3. Study of electron micrographs of viruses, bacteria and cyanobacteria
Dec 2020	Cryptogams: General characters, classification according to G.M. Smith up to class level Lichens: General characters, nature of association, forms of thalli, economic importance, structure and reproduction in <i>Usnea</i> Algae: General characters, classification according to F.E. Fritsch (1935) up to the class level, economic importance. Systematic position, occurrence, thallus structure, reproduction vegetative, asexual and sexual, (excluding development of sex organs) and graphic life cycle with respect to following types: Cyanophyceae – <i>Nostoc</i> Chlorophyceae – <i>Chara</i>	Lichens: Form - Crustose, Foliose, Fruticose; <i>Usnea</i> a) <i>Nostoc</i> b) <i>Chara</i>	Study of locally available plants of the following families : ii. Malvaceae iii. Leguminosae Fabaceae (Papilionaceae) Caesalpiniaceae Mimosaceae	4. Study of electron micrographs of eukaryotic cell and different cell organelles 5. Preparation of slides for the study of mitosis (root tips of onion) 6. Preparation of slides for the study of meiosis (<i>Rhoeo</i> , <i>Aloe</i> or onion flower buds)
Jan 2021	Systematic position, occurrence, thallus structure, reproduction vegetative, asexual and sexual, (excluding development of sex organs) and graphic life cycle with respect to following types: Xanthophyceae <i>Botrydium</i> Phaeophyceae <i>Sargassum</i> Rhodophyceae – <i>Batrachospermum</i>	c) <i>Botrydium</i> d) <i>Sargassum</i> e) <i>Batrachospermum</i> Fungi: a) <i>Albugo</i>	Study of locally available plants of the following families : Apocynaceae Solanaceae Acanthaceae Lamiaceae (Labiatae) Nyctaginaceae	7. Preparation of idiogram from the given micrograph of karyotype 8. Observation of giant chromosomes in <i>Chironomous</i> larvae 9. Preparation of wool models of mitosis, meiosis, cell





	Fungi: General characters, classification according to Alexopoulos and Mims (1979) up to the class level, economic importance. Systematic position, occurrence, structure of mycelium, reproduction - asexual, sexual and graphic life cycle with respect to the following types: <i>Oomycetes – Albugo</i>			structure, Chromosome, DNA and RNA.
Feb 2021	Systematic position, occurrence, structure of mycelium, reproduction - asexual, sexual and graphic life cycle with respect to the following types: <i>Zygomycetes – Mucor</i> <i>Ascomycetes Eurotium</i> <i>Basidiomycetes Agaricus</i> <i>Deuteromycetes Cercospora</i>	Fungi: b) <i>Mucor</i> c) <i>Eurotium</i> d) <i>Agaricus</i> e) <i>Cercospora</i>	Study of locally available plants of the following families : Liliaceae Poaceae (Gramineae)	

Name: Dr. Mhaske S.U.

MONTH	Class: FY	Class: FY	Class: SY	Class: TY
	Paper: V (TH)	Paper: VII (PR)	Paper: XVI (PR)	Paper: XXIII (PR)
	Semester: II	Semester: II	Semester: IV	Semester: VI
Apr 2021			Plant Physiology 1. Osmosis by egg membrane and potato osmoscope. 2. Plasmolysis in <i>Tradescantia</i> leaves 3. Effect of different conc. of organic solvents on membrane permeability 4. Determination of water potential of any tuber	Genetics and Biotechnology 2. Working out laws of inheritance by using seed mixtures
May 2021	Diversity Of Cryptogams – II Unit – 1 1. Bryophytes: 1.1 General characters of bryophytes, classification as per G. M. Smith 1.2 Systematic position, occurrence, thallus structure (external and internal), reproduction - vegetative, asexual, and sexual (excluding developmental stages), graphic life cycle and alternation of generations of the following types: a) <i>Hepaticopsida – Marchantia</i>	Diversity Of Cryptogams – II Unit – 1 Study of specimen of Bryophytes, and Pteridophytes through temporary mounting, permanent slides, field work and biovisual aids. a) Bryophytes: i. <i>Marchantia</i>	5. Detection of mineral elements in plant ash. 6. Digestion of starch by amylase. 7. Detection of enzyme activity : oxidase, peroxidase, catalase and dehydrogenase 13. Isolation of starch. 14. Isolation of pectin. 15. Estimation of total and reducing sugars in fruit juice by Fehling solution 16. Separation of amino acids by paper chromatography	3. Problems based on gene interaction

<p>June 2021</p>	<p>1. Bryophytes: 1.2 Systematic position, occurrence, thallus structure (external and internal), reproduction -vegetative, asexual, and sexual (excluding developmental stages), graphic life cycle and alternation of generations of the following types: b) Bryopsida – <i>Funaria</i></p> <p>2. Pteridophytes: General characters of Pteridophytes, classification as per G. M. Smith. Systematic position, occurrence, external and internal structure of sporophyte and gametophyte, reproduction (excluding developmental stages), graphic life cycle and alternation of generations of the following types: a) Psilopsida – <i>Psilotum</i></p>	<p>a) Bryophytes: ii. <i>Funaria</i> b) Pteridophytes: <i>Psilotum</i></p>	<p>Palaeobotany: a) Types of fossils (Specimens) b) <i>Lygnopteris</i> (Specimen / Permanent slide)</p> <p>Utilization of plants : a) Food plants – Study of the morphology, structure, and histochemical tests of food storing tissue in Jowar & Wheat. b) Histochemical test of lignin and cellulose c) Vegetable oils – hand section of Groundnut & Sunflower Seed and staining of oil droplets by Sudan III.</p>	<ol style="list-style-type: none"> 1. Study of fungicides as per theory syllabus 2. Preparation of Bordeaux mixture, burgundy mixture and Bordeaux paste 3. Study of insecticides with respect to active ingredient, colour code, formulation, mode of action, antidote and uses 4. Study of <i>Trichoderma</i> culture
<p>July 2021</p>	<p>Systematic position, occurrence, external and internal structure of sporophyte and gametophyte, reproduction (excluding developmental stages), graphic life cycle and alternation of generations of the following types: b) Lycopsida – <i>Lycopodium</i>, <i>Selaginella</i> c) Sphenopsida – <i>Equisetum</i> Systematic position, occurrence, external and internal structure of sporophyte and gametophyte, reproduction (excluding developmental stages), graphic life cycle and alternation of generations of the following types: d) Pteropsida – <i>Marsilea</i></p>	<p>b) Pteridophytes: <i>Lycopodium</i>, <i>Selaginella</i>, <i>Equisetum</i> b) Pteridophytes: <i>Marsilea</i></p>	<p>d) Study of the sources of Timber, Gum, Medicinal plants, Cosmotics and Perfumes e) Study of Black pepper, Clove, Cinnamon, Cumin, Coriander f) Field notebook, specimen collection, and tour report.</p>	<ol style="list-style-type: none"> 5. Study of plant protection equipments –pneumatic air pump, knapsack sprayer, mist blower cum duster 12. Study of pathogens in fruits from local market


Dr. D.S. Ghogare


M. S. V.

Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of Botany

Name: Mr.D.B More.

MONTH	Class: TY Paper: XV (TH) Semester: V	Class: FY Paper: III Semester: I (PR)	Class: SY Paper: VII (PR) Semester: III	Class: TY Paper: XVII (PR) Semester: V
	Cell Biology and Molecular biology			Cell Biology and Molecular biology
Nov 2020	Unit-1 1.Cell: Structure of Prokaryotic cell (Bacterial cell) and Eukaryotic cell (plant cell) 2. Cell wall and cell organelles: Structure and functions of cell wall and Cell organelles – Golgi complex, Endoplasmic reticulum, Lysosomes 3. Nucleus: Ultra structure, (nuclear membrane, nucleolus, chromatin material, nucleoplasm), Functions of nucleus.	Diversity Of Cryptogams – I 1. Study of simple and compound microscope 2. Virus: Tobacco Mosaic Virus 3. Gram staining in bacteria, forms of Bacteria	Taxonomy of Angiosperms Study of locally available plants of the following families : Annonaceae	1. Study of the cell structure from onion leaf or <i>Tradescantia</i> leaf 2. Preparation of cytological (AA, FAA etc.) fixatives and stains (acetocarmine, aceto-orcein). 3. Study of electron micrographs of viruses, bacteria and cyanobacteria
Dec 2020	Unit-2 1. Cell division: a) Cell cycle -G1 phase, S phase, G2 phase and M phase b) Mitosis – definition, process and significance. c) Meiosis-definition, process and significance.	Lichens: Form - Crustose, Foliose, Fruticose; <i>Usnea</i> a) <i>Nostoc</i> b) <i>Chara</i>	Study of locally available plants of the following families : ii.Malvaceae iii.Leguminosae Fabaceae (Papilionaceae) Caesalpinaceae Mimosaceae	4. Study of electron micrographs of eukaryotic cell and different cell organelles 5. Preparation of slides for the study of mitosis (root tips of onion) 6. Preparation of slides for the study of meiosis (<i>Rhoeo</i> , <i>Aloe</i> or onion flower buds)
Jan 2021	2. Nucleic acids: a. DNA: Definition, structure, chemical composition (nitrogenous bases, purines, 25. B.Sc. Botany [Opt.] IIIrd Yr.Sem.V & VI - 7 - pyrimidines, nucleosides, nucleotides, phosphate and sugars) Watson and Crick's model, Z - DNA, B - DNA, functions of DNA b. Replications of DNA – conservative, semi conservative and dispersive. c. RNA: Structure, types and functions	c) <i>Botrydium</i> d) <i>Sargassum</i> e) <i>Batrachospermum</i> Fungi: a) <i>Albugo</i>	Study of locally available plants of the following families : Apocynaceae Solanaceae Acanthaceae Lamiaceae (Labiatae) Nyctaginaceae	7. Preparation of idiogram from the given micrograph of karyotype 8. Observation of giant chromosomes in <i>Chironomous</i> larvae 9. Preparation of wool models of mitosis, meiosis, cell structure, Chromosome, DNA and RNA.



Feb 2021	Unit-3. 1. Chromosome: (Definition, morphology-size, shape, number, Ultra structure – chromatid, chromonema, chromomere, centromere, kinetochore, secondary constriction, satellite, telomere, heterochromatin, euchromatin, Nucleosome model (Woodlock 1973), chemical composition, Functions of chromosome, Giant chromosomes-polytene and lampbrush chromosome. 2) Chromosomal aberrations : (a) Structural-deletion, duplication, inversion and translocation b) Numerical: – euploidy and aneuploidy	Fungi: b) <i>Mucor</i> c) <i>Eurotium</i> d) <i>Agaricus</i> e) <i>Cercospora</i>	Study of locally available plants of the following families : Liliaceae Poaceae (Gramineae)	
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Name: Mr.D.B. More

MONTH	Class: SY Paper: XII (TH) Semester: IV	Class: SY Paper: XIV (PR) Semester: IV	Class: FY Paper: III (PR) Semester: II	Class: TY Paper: XXI (PR) Semester: VI
Apr 2021	PLANT PHYSIOLOGY : Unit:1 1. Plant water relations: a) Diffusion, osmosis, plasmolysis and imbibition. (02) b) Water absorption and ascent of sap (Transpiration pull theory). (03) c) Transpiration – Definition, types -cuticular, lenticular and stomatal, structure of stomata, mechanism of opening and closing of stomata (starch – sugar hypothesis). (02) 2. Mineral nutrition: a) Macro and microelements: roles and deficiency symptoms of N, P, K, Mg, Ca, Fe, Zn, Bo, Mo. b) Mineral uptake – passive (ion exchange theory) and active (carrier concept). (05) 3. Translocation of solutes: Mass flow hypothesis, protoplasmic streaming theory, Source and sink relationship. (03)	Plant Physiology 1. Osmosis by egg membrane and potato osmoscope. 2. Plasmolysis in <i>Tradescantia</i> leaves 3. Effect of different conc. of organic solvents on membrane permeability 4. Determination of water potential of any tuber	Diversity Of Cryptogams – II Unit – 1 Study of specimen of Bryophytes, and Pteridophytes through temporary mounting, permanent slides, field work and biovisual aids. a) Bryophytes: i. <i>Marchantia</i>	Genetics and Biotechnology 2. Working out laws of inheritance by using seed mixtures

May 2021	Unit:2 1. Enzymes : Chemical nature holoenzyme , apoenzyme, prosthetic group, cofactor and coenzyme, properties , nomenclature, classification based on type of reactions, mechanism of enzyme action .	5. Detection of mineral elements in plant ash. 6. Digestion of starch by amylase. 7. Detection of enzyme activity : oxidase, peroxidase, catalase and dehydrogenase 13. Isolation of starch.	b) Pteridophytes: <i>Lycopodium, Selaginella Equisetum</i> b) Pteridophytes: <i>Marsilea</i>	3. Problems based on gene interaction

June 2021	2. Growth: Definition, Phases of Growth, Sigmoid growth curve. 3. Growth regulators: Discovery, structure, roles and practical applications of Auxins, Gibberellins, Cytokinins, Absciscic acid and Ethylene.	14. Isolation of pectin. 15. Estimation of total and reducing sugars in fruit juice by Fehling solution		
July 2021	Unit:3 1. Photosynthesis: Definition, ultrastructure of chloroplast, photosynthetic pigments, Light reactions -Hill reaction, red drop and Emerson enhancement effect, two pigment systems (PS I, PS II), photophosphorylation – cyclic and non cyclic, Z-scheme; Dark reactions -C3, C4 and CAM pathways. 2. Respiration: Definition, Ultrastructure of mitochondria, types of respiration, Glycolysis, TCA Cycle, Electron transport system, alcoholic and lactic acid fermentation.	16. Separation of amino acids by paper chromatography		

Teacher:
Mr. D. B. More.
DB More

HOD:
Dr. D. S. Ghogare

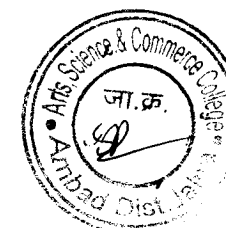
Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna

♦ Annual Teaching Plan (Year: 2020-2021) ♦

Department of Botany

Name: Dr. Shaikh Faruk Karim

MONTH	Class: SY	Class: FY	Class: SY	Class: TY
	Paper: X (PR)	Paper: III	Paper: VIII (TH)	Paper: XVIII (C) (PR)
	Semester: III	Semester: I (PR)	Semester: III	Semester: V
	PLANT ECOLOGY :	Diversity Of Cryptogams-I	PLANT ECOLOGY:	PLANT PATHALOGY;
Nov 2020	<p>1. Study of morphological and anatomical adaptations in hydrophytes – <i>Hydrilla</i>, <i>Eichhornia</i>, <i>Typha</i> and <i>Nymphaea</i> .</p> <p>2. Study of morphological and anatomical adaptations in xerophytes -<i>Aloe</i>, <i>Nerium</i>, <i>Casuarina</i>.</p> <p>3. Study of morphological and anatomical adaptations in hydrophytes – <i>Hydrilla</i>, <i>Eichhornia</i>, <i>Typha</i> and <i>Nymphaea</i> .</p> <p>4. Study of morphological and anatomical adaptations in xerophytes -<i>Aloe</i>, <i>Nerium</i>, <i>Casuarina</i>.</p>	<p>Diversity Of Cryptogams – I</p> <p>1. Study of simple and compound microscope</p> <p>2. Virus: Tobacco Mosaic Virus</p> <p>3. Gram staining in bacteria, forms of Bacteria</p>	<p>Unit – 1 Plant and environment A)Climatic factors –</p> <p>a) Light as an ecological factor, global radiation and photo synthetically active radiation .</p> <p>b) Temperature as an ecological factor.</p> <p>c) Water as an ecological factor, physicochemical properties of water.</p>	<p>Unit-1 1.</p> <p>Study of Koch's postulates – isolation, inoculation and disease development 2.Study of the following diseases with respect to symptoms, causal organism, disease cycle and disease management</p> <p>1) Cereals: a. Black stem rust of wheat b. Grain smut of jowar c. Ergot of bajra</p>
Dec 2020	<p>5. Study of morphological adaptations in halophytes -Pneumatophore, Stilt roots.</p> <p>6. Study of morphological and anatomical adaptations in epiphytes.</p> <p>7. Study of vegetation by quadrat method.</p>	<p>Lichens: Form - Crustose, Foliose, Fruticose; <i>Usnea</i></p> <p>a) <i>Nostoc</i></p> <p>b) <i>Chara</i></p>	<p>B) Edaphic factor –</p> <p>Soil formation, soil profile, physicochemical properties of soil, major soil types of India, soil erosion and soil conservation.</p> <p>Unit:2 1. Response of plants to water Morphological, physiological and anatomical response of plants to water:–</p>	<p>2- study following diseases with respect to symptoms causal organisms disease cycle and disease management 2)Pulses: a. Wilt of pigeon pea b. Yellow vein mosaic of bean .</p> <p>3)Vegetables: a. Late blight of potato b. Little leaf of brinjal c. Black rot of onion (<i>Aspergillus</i>)</p>



			hydrophytes, xerophytes, plants to water:— hydrophytes, xerophytes, halophytes and epiphytes.	4) Oil seeds: a. Tikka disease of groundnut b. Damping off of mustard
Jan 2021	<p>8. Estimation of Importance Value Index (IVI) of grassland ecosystem on the basis of relative frequency, relative density and relative abundance.</p> <p>9. Determination of water holding capacity of different soils.</p> <p>10. Study of meteorological instruments - Rain gauge, Hygrometer, Barometer.</p>	<p>c) <i>Botrydium</i> d) <i>Sargassum</i> e) <i>Batrachospermum</i> Fungi: a) <i>Albugo</i></p>	<p>Unit:2 1. Response of plants to water Morphological, physiological and anatomical response of plants to water: hydrophytes, xerophytes, halophytes and epiphytes.</p> <p>2. Phytogeography: (Biogeographical regions of India, vegetation types of India.</p>	<p>5) Cash crops: a. Grassy shoot of sugarcane b. Downy mildew of grapes c. Angular leaf spot of cotton d. Citrus canker 6) Ornamentals: Powdery mildew of rose</p>
Feb 2021	<p>11. Determination of percent leaf area injury of different infected leaf samples.</p> <p>12. Estimation of salinity of different water samples.</p> <p>13. Determination of pH of different soils by pH papers/universal indicator/pH meter.</p>	<p>Fungi: b) <i>Mucor</i> c) <i>Eurotium</i> d) <i>Agaricus</i> e) <i>Cercospora</i></p>	<p>Unit: 3 1. Community ecology: Community characteristics -frequency, density, life forms, biological spectrum. 1. Ecosystem: Structure -biotic and abiotic components, food chain, food web, ecological pyramids, energy flow, biogeochemical cycles-nitrogen and phosphorus</p>	<p>7) Weeds: Rust of Euphorbia 8) Trees: <i>Cercospora</i> on Albizzia fruits</p>

Name: Dr. Shaikh Faruk Karim

MONTH	Class: TY	Class: SY	Class: FY	Class: TY
	Paper: XX (C) (TH)	Paper: XIV (PR)	Paper: III (PR)	Paper: XXII (C) (PR)
	Semester: VI	Semester: IV	Semester: II	Semester: VI
Apr 2021	MICROBIOLOGY AND DISEASE MANAGEMEMNT : Unit-1 1. Microbiology Microorganisms in biological world, their classification and features of different groups 2. Microbial techniques: a. Microscopy – simple, compound and electron microscope b. Micrometry – Principle, working and uses c. Staining – common stains used in pathology, their preparation and significance, (cotton blue and Gram’s Stain) d. Sterilization of glass wares and media	Plant Physiology 1.Osmosis by egg membrane and potato osmoscope. 2. Plasmolysis in <i>Tradescantia</i> leaves 3. Effect of different conc. of organic solvents on membrane permeability 4. Determination of water potential of any tuber	Diversity Of Cryptogams – II Unit – 1 Study of specimen of Bryophytes, and Pteridophytes through temporary mounting, permanent slides, field work and biovisual aids. a) Bryophytes: i. <i>Marchantia</i>	(Microbiology and Disease Management 1. Study of fungicides as per theory syllabus 2. Preparation of Bordeaux mixture, burgundy mixture and Bordeaux paste.
May 2021	3. Culture media for isolating plant pathogen Industrial application of microorganisms - organic acids, alcohol, milk products, antibiotics and bio pesticides . Unit-2 Disease management: 1. Preventive methods: field sanitation, use of clean planting	5. Detection of mineral elements in plant ash. 6. Digestion of starch by amylase. 7. Detection of enzyme activity : oxidase, peroxidase, catalase and dehydrogenase 13. Isolation of starch.	b) Pteridophytes: <i>Lycopodium, Selaginella Equisetum</i> b) Pteridophytes: <i>Marsilea</i>	3. Study of insecticides with respect to active ingredient, colour code, formulation, mode of action, antidote and uses 4. Study of Trichoderma culture 5. Study of plant protection equipments –pneumatic air

	<p>material, crop rotation, trap crops, time of sowing, planting distance and tillage 2. Control methods – a. Seed treatment: concept, objective, traditional and modern methods of seed treatment b. Soil sterilization: concept, objectives and methods</p>			<p>pump, knapsack sprayer, mist blower cum duster 6. Principle and working of autoclave, laminar air flow, Tilak air sampler 7. Use of aerobiological techniques to study fungal spora (gravity slide method, Tilak air sampler)</p>
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<p>June 2021</p>	<p>DISEASE MANAGEMENT c. Fungicides: Definition, classification and ideal characteristics of fungicides, study of fungicides with respect to active ingredients, formulations, methods of application, mode of action and uses i. Sulphur fungicides – Inorganic – Wettable sulphur, Organic – Thiram ii. Copper fungicides iii. Mercuric chloride – Agrosan – GN iv. Heterocyclic nitrogenous compounds – Captan v. Benzene compounds – Dexon 25 vi. Antibiotics – Streptomycin and Aureofungin vii. Systemic – Bavistin and Vitavax d. Pesticides: Nicotin, Neem and pyrethrum e. Rhodenticides – Zinc phosphoid f. Nematicides- Nemagon, Propoxar g Weedicides- 2,4-D h. Biological control- definition, need, examples and role Plant quarantine</p>	<p>14. Isolation of pectin. 15. Estimation of total and reducing sugars in fruit juice by Fehling solution</p>		<p>8. Calibration of microscope and measurement of fungal spores. 9. Sketching of fungal spore by camera lucida technique 10. Detection of organic acids from healthy and infected leaves by circular paper chromatography . 11. Detection of Amino acids from healthy and infected leaves by circular paper chromatography.</p>
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<p>July 2021</p>	<p>TYPES OF NOZZALS :</p> <p>3. Control measures and environment: pollution due to chemicals, residual effects, toxicity, safe measures, colour code, antidote, symptoms of poisoning, precautions in using pesticides 4. Pesticide application equipments: principle and working –pneumatic air pump knapsack sprayer, mist blower and duster, types of nozzles 5. Plant clinic: Concept, objective and need (01) 6. Recent techniques in plant pathology: Genetically modified organisms (GMO's), B. T. Cotton, Pheromones</p>	<p>16. Separation of amino acids by paper chromatography</p>		<p>12. Study of pathogens in fruits from local market 13. Study of fungi from locally available seed samples 14. Preparation of sterile media - nutrient agar, potato dextrose agar 15. Preparation of stains and mounting media - cotton blue, lacto phenol and gram stain</p>
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Dr. F. K. Shaikh

Luttya

Dr. D. S. Ghogare
Head of
Department

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Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

Department of Botany

Name: Dr. D. S. Ghogare

MONTH	Class: FY	Class: FY	Class: SY	Class: SY	Class: TY	Class: TY
	Paper: II (TH)	Paper: IV (PR)	Paper: IX (TH)	Paper: XI (PR)	Paper: XVIII C (TH)	Paper: XX C (PR)
	Semester: I	Semester: I	Semester: III	Semester: III	Semester: V	Semester: V
Nov 2020			Taxonomy of Angiosperms Unit – 1 1. Salient features, origin and evolution of Angiosperms 2. Bentham and Hooker's system of classification upto series level, its merits and demerits.		Plant Pathology Unit-1 Fundamentals of plant pathology: 1. Plant pathology – history, scope, losses due to pathogens, importance and need to study plant pathology 2. Classification of plant diseases on the basis of symptoms and causal organisms – animate and inanimate	
Dec 2021	Morphology of Angiosperms Unit – 1 Basic body plan of flowering plant, modular type of growth, diversity of plant forms: Herbs, Shrubs, Trees, Climbers; annuals, biennials and perennials. Morphology of vegetative organs: Root: Characteristics, functions, regions of root, types – tap and adventitious, modification of root for storage, mechanical support (stilt root) and vital functions (Pneumatophore). Stem: Characteristics, functions, modification – underground, sub aerial and aerial	Morphology of Angiosperms Study of the following with the help of temporary mountings, permanent slides, charts, models, specimens and biovisual aids. *Study of root and its modifications : a) Tap root b) Adventitious root c) Storage roots d) Stilt root e) Respiratory root.	3. Taxonomy in relation to anatomy, embryology, palynology, ecology and cytology 4. Concept of Binomial Nomenclature and its advantages 5. Concept of genus, species and epithet. 6. Herbaria and Botanical Gardens. Unit:2 Study of the following families: systematic position , salient features, floral formula, floral diagram, common examples and their economic importance 1. Annonaceae	Taxonomy of Angiosperms Study of locally available plants of the following families : Annonaceae	3. Plant pathological institutes – IARI (Indian Agricultural Research Institute), ICRISAT(International Crop Research Institute for Semi Arid Tropics) 4. Seed pathology – concept and importance of seed pathology, seed borne pathogens 5. Study of air borne pathogens: methods and applications 6. Field and laboratory diagnosis of plant disease - Koch's postulates Unit-2 Plant diseases: Study of the following diseases with respect to symptoms, causal organism, disease cycle and disease management:	Plant Pathology 1. Study of Koch's postulates – isolation, inoculation and disease development 2. Study of the following diseases with respect to symptoms, causal organism, disease cycle and disease management 1) Cereals: a. Black stem rust of wheat b. Grain smut of jowar c. Ergot of bajra

					1) Cereals: a. Black stem rust of wheat b. Grain smut of jowar c. Ergot of bajra	
Jan 2021	Morphology of vegetative organs: Leaf: Parts of typical leaf, phyllotaxy, types (simple and compound), diversity in shape and size, venation and modifications of leaf. Morphology of reproductive organs: Inflorescence: Racemose, cymose and special types.	*Study of stem and its modifications : a) Underground stem b) Sub aerial stem c) Aerial Stem Study of leaf and its diversity: a) Types of leaf (Simple, Compound) b) Shape and size c) Venation d) Phyllotaxy e) Modifications	Study of the following families: systematic position , salient features, floral formula, floral diagram, common examples and their economic importance ii.Malvaceae iii.Leguminosae Fabaceae (Papilionaceae) Caesalpiniaceae Mimosaceae	Study of locally available plants of the following families : ii.Malvaceae iii.Leguminosae Fabaceae (Papilionaceae) Caesalpiniaceae Mimosaceae	Plant diseases: Study of the following diseases with respect to symptoms, causal organism, disease cycle and disease management: 2) Pulses: a. Wilt of pigeon pea b. Yellow vein mosaic of bean 3) Vegetables: a. Late blight of potato b. Little leaf of brinjal c. Black rot of onion (<i>Aspergillus</i>) 4) Oil seeds: a. Tikka disease of groundnut b. Damping off of mustard	2.Study of the following diseases with respect to symptoms, causal organism, disease cycle and disease management 2) Pulses: a. Wilt of pigeon pea b. Yellow vein mosaic of bean 3) Vegetables: a. Late blight of potato b. Little leaf of brinjal c. Black rot of onion (<i>Aspergillus</i>) 4) Oil seeds: a. Tikka disease of groundnut b. Damping off of mustard
Feb 2021	Flower: Definition, parts of typical flower, forms of thalamus, androphore, gynophore, gynandrophore, insertion of floral whorls on thalamus (hypogyny, perigyny and epigyny), structure, function and modification of calyx, corolla, androecium, gynoecium, aestivation and placentation.	Study of inflorescence: a) Racemose b) Cymose c) Special Study of flowers: a) Typical flower (<i>Hibiscus / Datura</i>) b) Hypogynous, Perigynous and Epigynous c) Aestivation d) Forms of corolla – cruciform, papilionaceous, infundibuliform and bilabiate e) Parts of typical stamen, adhesion and cohesion. f) Parts of typical carpel and placentation	Study of the following families: systematic position , salient features, floral formula, floral diagram, common examples and their economic importance Apocynaceae Solanaceae Acanthaceae Lamiaceae (Labiatae) Nyctaginaceae	Study of locally available plants of the following families : Apocynaceae Solanaceae Acanthaceae Lamiaceae (Labiatae) Nyctaginaceae	Plant diseases: Study of the following diseases with respect to symptoms, causal organism, disease cycle and disease management: 5) Cash crops: a. Grassy shoot of sugarcane b.Downy mildew of grapes c. Angular leaf spot of cotton d. Citrus canker 6.Ornamentals: a. Powdery mildew of rose	2.Study of the following diseases with respect to symptoms, causal organism, disease cycle and disease management 5) Cash crops: a. Grassy shoot of sugarcane b.Downy mildew of grapes c. Angular leaf spot of cotton d. Citrus canker 6.Ornamentals: a. Powdery mildew of rose

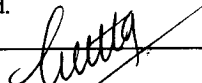
	Fruit: Types of fruits Fruit and Seed dispersal strategies.	Study of flowers with respect to pollination mechanism: <i>Calotropis, Ocimum, Salvia, Helianthus, Ficus, Clitoria.</i> Study of fruits: *Simple: legume, capsule, caryopsis, achene, drupe, berry. *Aggregate: an etaerio of berries, an etaerio of follicles *Composite fruit: sorosis, syconus	Study of the following families: systematic position , salient features, floral formula, floral diagram, common examples and their economic importance Liliaceae Poaceae (Gramineae)	Study of locally available plants of the following families : Liliaceae Poaceae (Gramineae)	Plant diseases: Study of the following diseases with respect to symptoms, causal organism, disease cycle and disease management: 7) Weeds: a. Rust of Euphorbia 8) Trees: a. <i>Cercospora</i> on <i>Albizzia</i> fruits	2.Study of the following diseases with respect to symptoms, causal organism, disease cycle and disease management 7) Weeds: a. Rust of Euphorbia 8) Trees: a. <i>Cercospora</i> on <i>Albizzia</i> fruits
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Name: Dr. D. S. Ghogare

MONTH	Class: FY	Class: FY	Class: SY	Class: SY	Class: TY	Class: TY
	Paper: VI (TH)	Paper: VIII(PR)	Paper: XIII(TH)	Paper: XV (PR)	Paper: XXI (TH)	Paper: XXIII (PR)
	Semester: II	Semester: II	Semester: IV	Semester: IV	Semester: VI	Semester: VI
Apr 2021			Gymnosperms and Utilization of Plants Unit – 1 Gymnosperms: 1. Salient features, classification as per Sporne 1965, economic importance Geological time scale, fossilization, types of fossils <i>Lyginopteris</i>, fossil fuels 3. Contributions of Prof. Birbal Sahani	Gymnosperms and Utilization of Plants Gymnosperms: a) <i>Cycas</i> i.Habit, young leaf, bulbils, male cone, microsporophyll, megasporophyll, pollen grains, mature seed.	Genetics and Biotechnology Unit : 1 1. Mendelism: i. Introduction -G.J. Mendel ii. Mendelian principles – Law of Dominance , law of segregation, law of independent assortment, back cross and test cross. 2. Interaction of genes: i. Allelic interaction: incomplete dominance, co dominance, lethal genes and blood group inheritance ii. Non allelic and non epistatic -comb shapes in fowls iii. Non allelic and	Genetics and Biotechnology 2. Working out laws of inheritance by using seed mixtures

					<p>epistatic:</p> <p>a) Complementary genes or duplicate recessive epistasis (9:7)</p> <p>b) Supplementary genes or recessive epistasis (9:3:4)</p> <p>c) Dominant epistatic genes or dominant epistasis (12:3:1)</p> <p>d) Duplicate genes or duplicate dominant epistasis (15:1)</p>	
May 2021	<p>Histology, Anatomy and Embryology Unit – 1 Histology: a) Types of tissue: i. Meristematic tissue – Meristem, structure and types based on origin and position ii. Permanent tissues: Simple, Complex and Secretory iii. Epidermal tissues: Trichomes and Stomata</p>	<p>Histology, Anatomy and Embryology Histology: 1. Meristem: root apex and shoot apex 2. Permanent tissues – simple, complex and secretory 3. Epidermal tissues: trichomes and stomata</p>	<p>4. Study of morphology, anatomy, reproduction (excluding developmental stages) and graphical representation of life cycle of the following types: a) Cycadales – <i>Cycas</i> b) Coniferales – <i>Pinus</i></p>	<p>a) Cycas ii. Study through permanent slides- Normal root (T.S.), Stem (T.S.), Ovule (L.S.) iii. Study through hand section- Coralloid root (T.S.), Rachis (T.S.), Leaflet (T.S.) b) Pinus i. Habit, long and dwarf shoot, scale leaves, foliage leaves, male cone, female cone, pollengrains (W.M.), winged seed. ii. Study through hand sections and permanent slides Root (T.S.), Stem (T.S.) Needle (T.S.) iii. Study through permanent slide - T.L.S. & R.L.S. of stem, L.S. of male cone, L.S. of female cone</p>	<p>3. Sex determination: i. Chromosomal theory of sex determination ii. Mechanism of sex determination in man (xx-xy), <i>Drosophila</i> (xx and xy), birds (zz-zw), grasshopper (xx-xo) and genic balance theory in <i>Drosophila</i>. iii. Sex determination in plants – <i>Melandrium</i></p> <p>Unit : 2 1. Sex linked inheritance: X, XY and Y linked inheritance: i. Colorblindness and hemophilia in man. ii) Holandric genes iii) White eye colour in <i>Drosophila</i>, iv) Gynandromorphs,</p>	<p>3. Problems based on gene interaction</p>

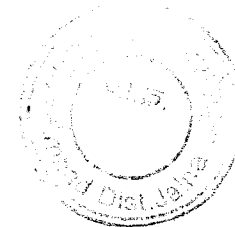
<p>June 2021</p>	<p>Histology: b) Histological organization of root and shoot apices c) Various theories of cellular organization Unit – 2 Anatomy: a) Primary structure of root, stem and leaf of Monocot (Maize) and Dicot (Sunflower) b) Secondary growth in root and stem of Dicot (Sunflower)</p>	<p>Anatomy: 1. Anatomy of young dicot (Sunflower) and monocot (Maize) root. (Double stained permanent slide preparation) 2. Anatomy of young dicot (Sunflower) and monocot (Maize) stem. (Double stained permanent slide preparation) 3. Anatomy of dicot (Sunflower) and monocot (Maize) leaf. (Double stained permanent slide preparation)</p>	<p>Unit:2 Utilization of Plants: 1. Domestication of plants and their centers of origin 2. History, origin, cultivation, harvesting, improved varieties and economic importance of the following plants: i. Food plants – Wheat, Jowar ii. Sugar – Sugarcane iii. Fibers -Cotton, Jute iv. Vegetable oils – Groundnut, Sunflower</p>	<p>Palaeobotany: a) Types of fossils (Specimens) b) <i>Lygnopteris</i> (Specimen / Permanent slide) Utilization of plants : a) Food plants – Study of the morphology, structure, and histochemical tests of food storing tissue in Jowar & Wheat. b) Histochemical test of lignin and cellulose c) Vegetable oils – hand section of Groundnut & Sunflower Seed and staining of oil droplets by Sudan III.</p>	<p>2. Structure and function of gene: i. Fine structure of gene (Seymour Benzer) † ii. One gene one enzyme hypothesis iii. Genes and related diseases – phenylketonuria, and alkaptonuria iv. Detection of genetic diseases – amniocentesis Genetic counseling Unit: 3 Biotechnology: 1. Concept of genetic engineering and recombinant DNA technology. 2. Restriction endonucleases, their properties and uses</p>	<p>4. Problems based on sex linked inheritance</p>
<p>July 2021</p>	<p>Anatomy: c) Wood anatomy: Growth rings, heart wood and sap wood d) Periderm: Origin, structure and functions. Unit – 3 Embryology: a) Structure of anther, microsporogenesis and development of male gametophyte b) Structure and types of ovule, megasporogenesis and development of female gametophyte (Polygonum type). c) Pollination -Mechanism, types and agencies. d) Double fertilization and its significance d) Double fertilization and its significance Embryology: e) Development of Dicot embryo (Crucifer type). f) Structure, development and types of endosperm. g) Structure of Dicot and Monocot seed.</p>	<p>Embryology: 1. Study of T.S. of anther 2. Structure of ovule (anatopous), types of ovules 3. Study of Dicot and Monocot seed (embryo) Field note book and Tour report. Collection of specimens</p>	<p>2. History, origin, cultivation, harvesting, improved varieties and economic importance of the following plants: v. Beverages – Tea, Coffee 3. Botanical name, family name and economic importance of the following plants: i. Medicinal plants – <i>Aloe vera</i>, <i>Withania somnifera</i>, <i>Curcuma longa</i>, <i>Vitex negundo</i> ii. Timber and Gum – Teak, Neem, Babul, Sisham iii. Cosmetics and Perfumes – Rose, Mogara, Tuberose iv. Spices – Clove, Black pepper, Cumin, Coriander, Cinnamon</p>	<p>d) Study of the sources of Timber, Gum, Medicinal plants, Cosmetics and Perfumes e) Study of Black pepper, Clove, Cinnamon, Cumin, Coriander f) Field notebook, specimen collection, and tour report.</p>	<p>Biotechnology: 3. Cloning vectors - plasmids and phage vectors 4. Techniques of genetic engineering -isolation of desired gene, gene cloning, transfer of gene into plants 5. Applications of genetic engineering.</p>	<p>1. Quiz</p>


DR. D. S. Ghogare.

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Annual Teaching Plan (Year: 2020-21)

Month	Class: B.A.F.Y.	Class B.Sc F.Y.:	Class: B.Com. F.Y.	Class: B.A.F.Y.	Class: B.A.F.Y.
	Paper: Hindi SL	Paper: Hindi SL	Paper: Hindi SL	Paper: Hindi I (opt)	Paper: Hindi II (opt)
	Semester: I	Semester: I	Semester: I	Semester: I	Semester: I
Nov.	पाठ्यक्रम जानकरी - कथा संसार - संपा. डॉ. माधव सोनाटक्के समविष्ट कहानिया	पाठ्यक्रम जानकरी - कथा संसार - संपा. डॉ. माधव सोनाटक्के समविष्ट कहानिया	पाठ्यक्रम जानकरी - कथा संसार - संपा. डॉ. माधव सोनाटक्के समविष्ट कहानिया	उपन्यस साहित्य का अध्ययन - उपन्यास विधा का परिचय - उद्भव एवं विकास	नाटक साहित्य का अध्ययन - नाटक विधा का परिचय - उद्भव एवं विकास
Dec.	- स्त्री और पुरुष - प्रेमचंद - हर की जित - सुदर्शन - दो बाँके - भगवतीचरण वर्मा	- स्त्री और पुरुष - प्रेमचंद - हर की जित - सुदर्शन - दो बाँके - भगवतीचरण वर्मा	- स्त्री और पुरुष - प्रेमचंद - हर की जित - सुदर्शन - दो बाँके - भगवतीचरण वर्मा	- हिंदी उपन्यास : स्वरूप / विकास * अमिता - यशपाल - यशपाल व्यक्तित्व / कृतित्व	* विजयपर्व - डॉ. समकुमार वर्मा - व्यक्तित्व / कृतित्व - कथानक, पात्र, देशकाल - संवाद, उद्देश
Jan.	- गौरी - सुभद्राकुमारी - एटम बम - अ.नागर - पंचलाईट - फ.रेणु - परख परीक्षा	- गौरी - सुभद्राकुमारी - एटम बम - अ.नागर - पंचलाईट - फ.रेणु - परख परीक्षा	- गौरी - सुभद्राकुमारी - एटम बम - अ.नागर - पंचलाईट - फ.रेणु - परख परीक्षा	- अमिता - कथानक - पात्र - चरित्र चित्रण - देशकाल वातावरण - संवाद * परख परीक्षा	समीक्षा * होरी - प्रेमचंद - व्यक्तित्व / कृतित्व - कथानक - परखा परीक्षा
Feb.	- अपरिचित - मोहन राकेश * हिंदी भाषा : - उद्भव / विकास - देवनागरी लिपी : स्वरूप एवं विकास	- अपरिचित - मोहन राकेश * हिंदी भाषा : - उद्भव / विकास - देवनागरी लिपी : स्वरूप एवं विकास	- अपरिचित - मोहन राकेश * हिंदी भाषा : - उद्भव / विकास - देवनागरी लिपी : स्वरूप एवं विकास	- भाषा शैली , उद्देश * आपका बंटी - मन्नू भंडारी - व्यक्तित्व / कृतित्व - कथानक - पात्र	- पात्र, देशकाल - संवाद, भाषाशैली - उद्देश * अलख आजादी की - सिंह
Mar.	- हिंदी वर्तनी - पारिभाषिक शब्दावली स्वरूप और समस्याए	- हिंदी वर्तनी - पारिभाषिक शब्दावली स्वरूप और समस्याए	- हिंदी वर्तनी - पारिभाषिक शब्दावली स्वरूप और समस्याए	- चरित्र चित्रण - देशकाल वातावरण - संवाद - उद्देश * समीक्षा	व्यक्तित्व / कृतित्व - कथानक, पात्र - चरित्र - देशकाल वातावरण - संवाद, भाषाशैली, उद्देश

1. प्रा.डॉ.व्ही.एस.जाधव : बी.ए.,बी.एससी- I(SL,Opt.II.)
2. प्रा.डॉ.जी.पी.निवारे : बी.ए.-I(Opt. I), बी.कॉम (SL)
3. प्रा. डॉ. आर. आर. हुसे



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Annual Teaching Plan (Year: 2020-21)

Month	Class: B.A.F.Y.	Class B.Sc F.Y.:	Class: B.Com. F.Y.	Class: B.A.F.Y.	Class: B.A.F.Y.
	Paper: Hindi SL	Paper: Hindi SL	Paper: Hindi SL	Paper: Hindi III(opt)	Paper: Hindi IV(opt)
	Semester: II	Semester:II	Sem ester: II	Semester: II	Semester: II
Apr.	कथासंसर - संपा. डॉ. माधव सोनाटक्के समाविष्ट कहानिया - घर की तलाश - राजेन्द्र यादव	कथासंसर - संपा. डॉ. माधव सोनाटक्के समाविष्ट कहानिया - घर की तलाश - राजेन्द्र यादव	कथासंसर - संपा. डॉ. माधव सोनाटक्के समाविष्ट कहानिया - घर की तलाश - राजेन्द्र यादव	* हिंदी गद्य साहित्य - कथा यात्रा : डॉ. माधव सोनाटक्के - जमीनदार का दस्तंत - एक टोकरीभर मिटटी - उसने कहा था	* एकांकी साहित्य - एकांकी नये पुराने : स्वरुप भेद - हिंदी एकांकी विकास - कथ्य एवं शिल्पगत अध्ययन
May.	- कसबे का आदमी - कामेश्वर - पोस्टमैन - मटियानी - छुट्टी का दिन - उषा प्रियवंदा	- कसबे का आदमी - कामेश्वर - पोस्टमैन - मटियानी - छुट्टी का दिन - उषा प्रियवंदा	- कसबे का आदमी - कामेश्वर - पोस्टमैन - मटियानी - छुट्टी का दिन - उषा प्रियवंदा	- नैराश्य - पुरस्कार - वह साप - परमात्मा का कुत्ता - ठेस	- शरणागत - लक्ष्मीनारायण - महाभारत की एक साँझ - कोल डस्ट - पड़ोसिन का कोट
Jun.	- गुमशुदा की तलाश - मालती जोशी - दूज का टिका - सूर्य बाला परखा परीक्षा	- गुमशुदा की तलाश - मालती जोशी - दूज का टिका - सूर्य बाला परखा परीक्षा	- गुमशुदा की तलाश - मालती जोशी - दूज का टिका - सूर्य बाला परखा परीक्षा	- फैसला - सपना * कागभगोड़ा - परसाई - परख परीक्षा	- कुंवारी धरती * प्रतिनिधि महिला एकांकी - एक और दिन - परख परीक्षा
Jul.	मै शहर और वे - नैमिष राय - संक्षेपण - पल्लवन	मै शहर और वे - नैमिष राय - संक्षेपण - पल्लवन	मै शहर और वे - नैमिष राय - संक्षेपण - पल्लवन	- दीप्ती कलेक्टर - एक तृप्त आदमी - अनशन कार्य - एक दीक्षांत भाषण	- जान से प्यारी - ऊष्मा - कलाकार और नारी
Aug.	- पत्राचार - कंप्यूटर मे हिंदी का प्रयोग - अनुवाद स्वरुप और भेद	- पत्राचार - कंप्यूटर मे हिंदी का प्रयोग - अनुवाद स्वरुप और भेद	- पत्राचार - कंप्यूटर मे हिंदी का प्रयोग - अनुवाद स्वरुप और भेद	- रामसिंह की ट्रेनिंग - दिल्ली यात्रा - विज्ञापन में बिकती नारी - सदाचार का ताबीज	- कपिल वस्तु की राजवधू - कमाई किसकी

1. प्रा. डॉ.व्ही.एस.जाधव : बी.ए.,बी.एससी.।(SL,Opt.IV)
2. प्रा. डॉ.जी.पी.निवारे:बी.ए. -I(Opt.III), बी.कॉम.SL.
3. प्रा. डॉ.आर.आर.हुसे :

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Month	Class: B.A.S.Y.	Class B.ScS.Y.:	Class: B.Com. S.Y.	Class: B.A.S.Y.	Class: B.A.S.Y.
	Paper: Hindi SL	Paper: Hindi SL	Paper: Hindi SL	Paper: Hindi V(opt)	Paper: Hindi VI(opt)
	Semester: III	Semester:III	Sem ester: III	Semester: III	Semester: III
Nov.	पाठ्यक्रम जानकारी * गद्य के विविध आयाम संपा. जेमोहन	पाठ्यक्रम जानकारी * गद्य के विविध आयाम संपा. जेमोहन	भाषा और भाषा शिक्षण - भाषा : तात्पर्य स्वरूप - भाषा प्रकार्य - भाषा विविध रूप - भाषा शिक्षण प्रक्रिया	पाठ्यक्रम जानकारी गद्य प्रभा : सं. आलोक गुप्ता - त्यागमूर्ति निराला : संस्मरण - जीवन का व्यवसाय : नारीलेख	* चुनी हुई लंबी कविताएँ - आंसू - प्रसाद - सरोज स्मूर्ति - निराला
Dec.	- आत्मवृत्त : मेरा जीवन - रेखाचित्र : नीलकंठ मोर - संस्मरण : कमला	- आत्मवृत्त : मेरा जीवन - रेखाचित्र : नीलकंठ मोर - संस्मरण : कमला	* प्रयोजनमूलक भाषा - तात्पर्य एवं स्वरूप - विशेषताये - विभिन्न रूप - हिंदी भाषा का महत्व	- फनीश्वरनाथ रेणु : संस्मरण - वे बहादुरी से बीके : व्यंग - सुख : कहानी - नदिया गहरी नाव पुराणी	- भाषा की रात - धूमिल - एक शब्द तिनका - लीलाधर जुगड़ी
Jan.	- निबंध : शिरीष के फुल - यात्रावृत्त : चीड़ो पर चांदनी - चाचणी परीक्षा	- निबंध : शिरीष के फुल - यात्रावृत्त : चीड़ो पर चांदनी - चाचणी परीक्षा	* वाणिज्य - व्यवसाय हिंदी - व्यापार के साधन - भाषिक प्रकार्य - चाचणी परीक्षा	* गद्य गौरव - इ.रा. स्वामी - रिहाई - बेनीपुरी -महात्मा गाँधी - वर्मा - चाचणी परीक्षा	- बैरागी आया है गाव - अमल कोली - चाचणी परीक्षा
Feb.	- प्रयोजनमूलक भाषा * भाषा का स्वरूप एवं महत्त्व * भाषा की परिभाषा - भाषा शिक्षण : स्वरूप	- प्रयोजनमूलक भाषा * भाषा का स्वरूप एवं महत्त्व * भाषा की परिभाषा - भाषा शिक्षण : स्वरूप	* व्यवसायिक सम्प्रेषण - तात्पर्य एवं स्वरूप - व्यवसायिक पत्राचार - विशेष व्यवहारिक पत्र	- शहदत्त की जिंदगी के तूफान में - निरालाभाई - बड़ा ठोस आदमी है	* भुमेजा (खंड काव्य) - नागार्जुन - कथानक - पात्र
Mar.	भाषायी कौशल - व्यवसायिक हिंदी - वाणिज्य व्यापार के साधन - पत्र लेखन, भाषिक प्रकार्य - निबंध लेखन	भाषायी कौशल - व्यवसायिक हिंदी - वाणिज्य व्यापार के साधन - पत्र लेखन, भाषिक प्रकार्य - निबंध लेखन	* निबंध लेखन - तात्पर्य एवं स्वरूप - व्यावसायिक / आर्थिक विषय पर निबंध	- मुक्तिबोध - परसाई - मेरा हमदम मेरा दोस्त	- चरित्र-चित्रण - संवाद - भाषा शैली - उद्देश

1. प्रा.डॉ. व्ही. एस.जाधव : बी.ए.-(Opt.V)
2. प्रा.डॉ. जी.पी. निवारे : बी.ए.,बी.एससी.SL
3. प्रा.डॉ. आर.आर. हुसे : बी.ए.(Opt.VI), बी.कॉम.(SL)

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Month	Class: B.A.S.Y.	Class B.ScS.Y.:	Class: B.Com. S.Y.	Class: B.A.S.Y.	Class: B.A.S.Y.
	Paper: Hindi SL	Paper: Hindi SL	Paper: Hindi SL	Paper: Hindi VII(opt)	Paper: Hindi VIII(opt)
	Semester: IV	Semester:IV	Sem ester: IV	Semester: IV	Semester: IV
Apr.	गद्य के विविध आयाम : प्रा.जय मोहन -डायरी : स्तीधर	- डायरी : स्तीधर	* वाणिज्य व्यापार : लेखन पक्ष - प्रारूपण - टिप्पण - संक्षेपण - पतिविदन	हिंदी भाषा स्वरूप : विकास - नामकरण विविध रूप - भारतीय आर्य भाषा - आंतराष्ट्रीय परिदृश्य	परीभाषिक शब्दावली - निर्धारण के सिद्धांत - विविध दृष्टिकोन - समस्याएं एवं समाधान
May.	- व्यंग : कर कमल हो गए - रिपोर्टाज : जहा आकाश नहीं दिखाई देता	- व्यंग : कर कमल हो गए - रिपोर्टाज : जहा आकाश नहीं दिखाई देता	* बैंकिंग और हिंदी भाषा - सामान्य परिचय - हिंदी का प्रयोग * लेखाकार्य / बही खाता	* हिंदी भाषा का मानकीकरण - मानक भाषा संकल्पना - लक्षण विशेषताएं - विकास यात्रा	* राजभाषा हिंदी - अवधारण स्वरूप - राजभाषा, राष्ट्रभाषा - संवैधानिक प्रावधान - प्रचार एवं प्रसार
Jun.	- निबंध : कुरीति तोड़ो, परिवार नहीं - जीवनी : स्वामी दयानंद - चाचणी परीक्षा	- निबंध : कुरीति तोड़ो, परिवार नहीं - चाचणी परीक्षा	- उद्देश और प्रकार - लेखन प्रक्रिया - खाता बही - तलपट का स्वरूप - चाचणी परीक्षा	* देवनागरी लिपि - उदभव विकास - वैज्ञानिकता - चाचणी परीक्षा	* प्रयोजनमूलक हिंदी - प्रारूपण - टिप्पण - चाचणी परीक्षा
Jul.	- मिडिया लेखन - समाचार, रेडिओ, फीचर - वैज्ञानिक, तकनीकी हिंदी	- मिडिया लेखन - समाचार, रेडिओ, फीचर - वैज्ञानिक, तकनीकी हिंदी	* वाणिज्य - व्यवसाय और मिडिया - जनसंचार माध्यम : विविध रूप - मिडिया लेखन के प्रकार * व्यवसायिक अनुवाद	- इलेक्ट्रॉनिक माध्यम और देवनागरी भाषा * प्रयोजनमूलक हिंदी - स्वरूप एवं विशेषताएं	- संक्षेपण - प्रतिवेधन - समाचार * प्रयोजनमूलक अनुवाद
Aug.	- पारिभाषिक शब्दावली - सिधांत / प्रयोग - अशुद्धि शोधन - शब्द, वाक्य मुद्रित - बैंकिंग, मिडिया अनुवाद	- पारिभाषिक शब्दावली - सिधांत / प्रयोग - अशुद्धि शोधन - शब्द, वाक्य मुद्रित - बैंकिंग, मिडिया अनुवाद	- अनुवाद स्वरूप एवं भेद - अनुवाद प्रक्रिया - बैंकिंग अनुवाद - मिडिया अनुवाद	- परिभाषा, विशेषताये - प्रयोग क्षेत्र एवं प्रयुक्तिया	- अनुवाद : स्वरूप प्रक्रिया - कार्यलयिन अनुवाद - वैज्ञानिक अनुवाद - जनसंचार माध्यम

1. प्रा.डॉ. व्ही.एस. जाधव : बी.ए.- II(Opt.VII)
2. प्रा.डॉ. जी. पी. निवारे : बी.ए.-बी.एससी.II(SL)
3. प्रा.डॉ. आर. आर. हुसे : बी.ए.II(Opt.VIII),बी.कॉम. II (SL)



Month	Class: तृतीय वर्ष	Class: तृतीय वर्ष	Class: तृतीय वर्ष	Class: तृतीय वर्ष
	Paper: IX	Paper: X	Paper: XI	Paper: XII
	Semester: V	Semester: V	Semester: V	Semester: V
Nov.	प्रादेशिक साहित्य साहित्य आस्वादन - अभिरुचि जीवन मुल्योंके प्रति आस्था प्रादेशिक भाषा का ज्ञान पाठ्यक्रम	* आदि तथा मध्यकालीन हिंदी साहित्य का इतिहास * हिंदी साहित्य परम्परागत परिचय * पाठ्यक्रम - विवेचन	साहित्यशास्त्र साहित्य चिंतन अध्ययन साहित्य सृजन - क्षमता का परिचय - पाठ्यक्रम - प्रवेश प्रक्रिया आदि	प्रकल्प कार्य लेखन निर्देशन पाठ्यक्रम -विषय विवेचन
Dec.	अ) मराठी साहित्य मराठी का कहानी साहित्य सामान्य परिचय मराठी कहानी साहित्य विकास कालखंड - आदि 1) शांति - कहानी - वि.स.	1) हिंदी साहित्यिहास : लेखन स्रोत एवं परंपरा 2) आदिकाल : सामाजिक, सांस्कृतिक, राजनितिक पृष्ठभूमि साहित्य : वीर गाथा, जैन, सिद्ध, नाथ, आदि	1) साहित्य का स्वरूप : तात्पर्य - संस्कृत, पाश्चात्य, हिंदी विज्ञानोद्वारा प्रस्तुत साहित्य परिभ्रमाए- 2) साहित्य के तत्व : प्रस्तावना	विषय चर्चा - विविध आयाम के साथ
Jan.	2) मुनागों की फलियाँ 3) प्रेम या पशुव्रती ? 4) अन मै पीछे हटूंगी नहीं 5) लाल कीचड़ - कहानी संवेदन - शिल्प विधान	रचानाभर : अमीर फुशारो, विद्यापति, नामदेव आदि 3) भविष्यकाल : सा.सं.रा.पु निर्गुण भक्ति साहित्य सगुण भक्ति साहित्य	तत्व : भाव, विचार या बुद्धीतव, कल्पना तत्व, शैली 3) साहित्य प्रयोजन : तात्पर्य, विद्वानोद्वारा प्रस्तुत साहित्य प्रयोजन 4) साहित्य हेतू : तात्पर्य -	विषय चर्चा - विविध आयाम के साथ
Feb.	6) जानवर - कहानी 7) कर्जमुक्ति 8) आघात 9) समांतर रेखाएं परख परीक्षा - परिणाम	रचनाकार : कबीर, जायशी, तुलाशिदास, सूरदास परख परीक्षा तथा परिणाम - उपरिक्त विषय पर चर्चा - आदि	संस्कृत, पाश्चात्य, हिंदी विद्वानोद्वारा प्रस्तुत साहित्य हेतू - 6) रस विचार : रस का स्वरूप, रस निष्पत्ती - रस भेद - रस : भारतीय पाश्चात्य दृष्टिकोन - परख परीक्षा	विषय चर्चा - विविध विषय चयन के साथ
Mar.	दलित आत्मकथा साहित्य : सामान्य परिचय * पराया : लक्ष्मन माने संवेदन - शिल्प परीक्षा - आदि	4) रीतिकाल : सा.सं.रा.पु. रीतिकालीन साहित्य - रीतिबद्ध, रितिसिद्ध तथा रितियुक्त रचनाकार - केशव, पद्मकर, बिहारी, धनानंद, भुषण परीक्षा - आदि	5) शब्दिराम विचार तात्पर्य और प्रमुख भेद परीक्षा आदी	विषय चयन - चर्चा आदी -

1. प्रा.डॉ. व्ही. एस. जाधव : तृतीय वर्ष -IX,XIIMain
2. प्रा.डॉ. जी. पी. निवारे : तृतीय वर्ष - X 3. प्रा.डॉ. आर. आर. हुसे : तृतीय वर्ष - XI



MatsyodariShikshanSanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020 -21)

Month	Class: तृतीय वर्ष	Class: तृतीय वर्ष	Class: तृतीय वर्ष	Class: तृतीय वर्ष
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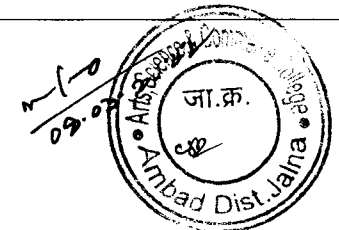
	Paper: XIII	Paper: XIV	Paper: XV	Paper: XVI
	Semester: VI	Semester: VI	Semester: VI	Semester: VI
Apr.	मध्यकालीन काव्य पाठ्यक्रम - पाठ्यक्रम पर चर्चा - संत कवि का अध्ययन भक्ती आंदोलन का अध्ययन	आधुनिक हिंदी साहित्य का इतिहास - हिंदी साहित्य - परिचय पाठ्यक्रम - विषय विवेचन आदी -	साहित्य शास्त्र पाठ्यक्रम - चर्चा - आदी - विषय विवेचन -	विषय चयन कि जानकारी तथा विषय प्रतिपादन आदी
May.	1) भक्तीकालीन काव्य : सामान्य परिचय 1) संत नामदेव 2) संत कबीर 3) संत रोहिदास	1) आधुनिक काल : काव्य साहित्य :- - भारतेन्दू युगीन कविता - द्विवेदी युगीन कविता - छायावादी कविता	1) अलंकार विचार : तात्पर्य वर्गीकरण एवं भेद परिचय - शब्दालंकार - अर्थालंकार - आदी -	विषय - लेखन - मार्गदर्शन
Jun.	कविता के माध्यम से सांस्कृतिक संवेदना का अध्ययन 4) सूरदास 5) तुलसीदास 6) निपट निरंजन 7) मिरांबाई	- प्रगतीवादी कविता - प्रयोगवादी कविता - नई कविता - समकालीन कविता - दलित आदिवासी कविता आ गद्य साहित्य :- नाटक	2) छंद विचार - तात्पर्य परिभाषा - तत्व, भेद * यांत्रिक भेद * वर्मिक भेद	विषय - लेखन परीक्षण - आदी
Jul.	8) बिहारी 9) रहीम - पारख परीक्षा	कहाणी - उपन्यास जीवनी - आत्मकथा - उदभव और विकास पारख परीक्षा - परिणाम	3) विधा स्वरूप : विवेचन साहित्य विधाए - विवेचन दृश्य काव्य - श्राव्य काव्य पारख परीक्षा - परिणाम	विषय - टंक लेखन - परीक्षण
Aug.	10) भूषण - आदी संत कावियों कि भक्ती कि संवेदनाओं का अध्ययन - परीक्षा आदी	काव्य साहित्य और गद्य साहित्य चर्चात्मक विश्लेषण आदी - परीक्षा आदी -	4) आलोचना : - स्वरूप भेद - महत्व, कार्य, गुण सामान्य परिचय आदी परीक्षा चर्चा - आदी	अंतिम - प्रकल्प कार्य संपन्न मौखिकी - परीक्षा आदी मुल्यांकन -

1. प्रा.डॉ. व्ही. एस. जाधव: तृतीय वर्ष -XIII , XVIProject
2. प्रा.डॉ. जी. पी. निवारे : तृतीय वर्ष -XIV,
3. प्रा.डॉ. आर. आर. हुसे : तृतीय वर्ष - XV

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Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021)

Month	Class: F4BA	Class:	Class: TPBA
	Paper: The structure of English	Paper:	Paper: Literary Criticism; Project Writing
	Semester: II	Semester: IV	Semester: VI
Apr-2021	Word Accent in English Accent and Rhythm in Connected Speech		Romanticism William Wordsworth's: Poetic Diction Concept of Poetry Paradox, Personification, Realism
May-2021	Intonation Tone Types Phonetic Transcription Phonemic Transcription	Nil	Modern Criticism F. R. Leavis: Conception of Literature Business of Criticism Satire, Sentimentalism, Style
Jun-2021	The Clause Types The Complex Sentences - I		Symbol, Theme, Technique, Wit Research Methodology Preparing Bibliography
Jul-2021	The Complex Sentences - II Word Formation		Preparing a Rough Draft - Finalising the draft - Preparing the complete Project -

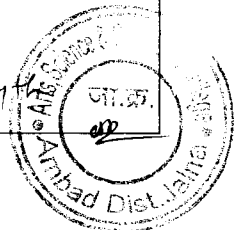


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Arts, Science & Commerce College, Ambad Dist. Jalna

Annual Teaching Plan (Year: 2020-2021)

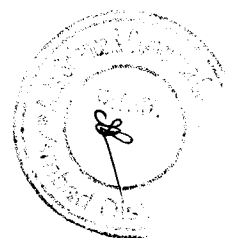
Department of English

Month	Class: F4BA	Class:	Class: TYBA
	Paper: I: The Structure of English	Paper:	Paper: II: Literary Criticism
	Semester: I	Semester: III	Semester: V
Nov-2020	Introduction to Phonetics Phonetic Symbols Phonemic Symbols		A Background to Criticism Introduction to Aristotle Aristotle's Observations on Tragedy
Dec-2020	The Articulation of Speech Sounds Classification of Speech Sounds The Syllable	Nil	A Background to English Criticism Introduction to Sir Philip Sidney Sidney's Criticism
Jan-2020	The Diphthongs The Simple Sentence Subject and Predicate Form and Function		Value of Sidney's Criticism Allegory Bathos Burlesque
Feb-2020	The Basic ^{Pattern} Types Sentence Types The Noun Phrase The Verb Phrase The Adjective Phrase The Adverb Phrase, PP		Caricature Flat and Round Character Genre Imagery Irony, Metaphor, Myth



Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021) Mr. Khoje S. K.

Month	Class: BA FY	Class: BA SY	Class: BA TY	Class: BA TY	Class: B.Com FY
	Paper: Paper: ENGLISH[Opt.] II	Paper: ENGLISH[Opt.] V	Paper: Paper: ENGLISH[Opt.] IX	Paper: Paper: ENGLISH[Opt.] XI	Paper: Paper: ENGLISH[C.L.] I
	Semester: I	Semester: III	Semester: V	Semester: V	Semester: I
Aug	Introduction to literature Unit I: Methodology of literature The Lyric, Sonnet, Novel	Introduction to Literature in English [1550 - 1750] Unit I: Background Study 1. The Essay 2. The Epic	Introduction, to 20 th c. English Literature	Introduction to American Literature Poetry: Emily Dickinson: 1. There Came a Wind Like a Bugle 2. Apparently with No Pleasure 3. They Say That "Time Assuages"	Introduction to language Grammar: Articles, Prepositions
Sept	Unit II: Shakespeare's Sonnets No. 29,60;73, 116, and 130.	Unit II: Bacon's Essays 1. Of Friendship 2. Of Love 3. Of Studies 4. Of Revenge 5. Of Parents and Children.	Poetry: T.S. Eliot: 1. The Love Song of J. Alfred Prufrock 2. Preludes	4. Hope is the Thing With Feathers 5. The Heart Asks Pleasure First Drama: The Hairy Ape by Eugene O'Neill	Grammar: Active and Passive Voice
Oct	Unit III: Novel The Guide by R.K. Narayan	Unit III: The Rape of the Lock by Alexander Pope Cantos 1 to 5	Drama: Pygmalion by G. B. Shaw Act 1 to 5	Fiction: The Adventures of Huckleberry Finn	Sounds of English Phonetic Transcription
Nov	====do==== Revision	====do==== Revision	Fiction: Sons and Lovers by D.H. Lawrence	Revision	Dialogue and Conversation



Matsyodari Shikshan Sanstha's
Arts, Science & Commerce College, Ambad Dist. Jalna
Annual Teaching Plan (Year: 2020-2021) Mr. Khoje S. K.

Month	Class: BA FY	Class: BA SY	Class: BA TY	Class: BA TY	Class: B.Com FY
	Paper: Paper: ENGLISH[Opt.] IV	Paper: ENGLISH[Opt.] VII	Paper: Paper: ENGLISH[Opt.] XIII	Paper: Paper: ENGLISH[Opt.] XV	Paper: Paper: ENGLISH[C.L.] II
	Semester: II	Semester: IV	Semester: VI	Semester: VI	Semester: II
Jan	Unit IV: Poetical Types: Ode, Dramatic Types Tragedy and comedy, Dark Comedy Unit V: John Keats' Odes 1. Ode to Nightingale 2. Ode to Autumn 3. Ode on a Grecian Urn	Unit I: Background Study 1. Shakespearean Tragedy 2. Features of Restoration Literature Unit II: Drama Julius Caesar by William Shakespeare Act 1 to 5	Introduction to 20th c. English Literature Poetry: W.B. Yeats: 1. Easter 1916 2. The Second Coming 3. Among School Children	Modern American Literature Poetry: Robert Frost: 1. Mending Wall 2. Road Not Taken Drama: A Streetcar Named Desire by Tennessee Williams	1. Tenses: Kinds and Uses 2. Phrases, Clauses, and Sentences 3. Reported Speech
Feb	Unit VI: Drama Arms and the Man by G.B. Shaw Act 1 to 5	Unit III: Novel Robinson Crusoe by Daniel Defoe	Drama: Look Back in Anger by John Osborne	Fiction: The Old Man and The Sea by Ernest Hemingway	4. Paragraph Writing 5. Essay Writing
Mar	==do==	Revision	Novel: Lucky Jim by Kingsley Amis	====do====	6. Letter Writing with C.V. Revision

