1.4.2 Action taken Report of Feedback

S.No	Documents
1	BCCA Vast Syllabus
2	Action Taken Letter
3	BCCA Reduced Syllabus

1.BCCA Vast Syllabus

APPENDIX – E

BCCA Part – I Semester – I

Paper - I: English – I (Communication Skills)

UNIT – I Language as Skill of Communication, Phonetics, Articles, The Proposition, Tenses Subject-Verb Accord, The Infinitive, The Participle, Clauses, Degrees of Comparison, Transformation of Sentences, Direct and Indirect Speech.

UNIT – II Modifiers, Sentence Connectives, The Gerund, Punctuation and Capitalization, Vocabulary, Use of Abbreviations, Correct Usage, Differentiating the Pairs of Words, Eponym, Concord, Homophones, Letter Writing.

UNIT – III Paragraph Writing, Proposal Writing, Verbal Communication, Oral Presentation, Technical Written Communication, Forms of Technical Writing, Report Writing, Advertising, Precis Writing.

UNIT – IV Collections of Short Essays, Collections of Short Stories, Interview Skills and Group Discussion, Communication : Process & Elements, Reading Comprehension, Principle of Public Speaking, How to Create a Power Presentation, Speaking Skills, Listening Skills.
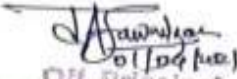
Paper - II:

Financial Accounting

UNIT – I Introduction to Financial Accounting: Accounting as an information system, Financial, cost and management Accounting and their interrelationships, Finance Function and Accounting, Accounting as an academic Discipline, Accounting as an Career and Profession, Place of Accounting Officers in the Organization, Auditing and Internal Control, Ethical Issues in Accounting, Forms of Organizations and Their Effect on Accounting, Accounting and Corporate Governance. Accounting Concepts, Standards and IFRS: Introduction ,Accounting Concepts and Convention, Accounting Policies, Generally Accepted Accounting Principles(GAAP), International Financial Reporting Standards(IFRS),Indian Accounting Standards(Ind AS),India's Road map to Convergence with IFRS, Indian Government Accounting Standards(IGAS). Presentation of Financial Statements: Balance Sheet: Conceptual Basis of a Balance Sheet, Capital and Revenue Expenditure and receipts, Classification of Item on a Balance sheet, Format of Balance Sheet, Balance Sheet Equation, Preparing Balance Sheet.

UNIT – II Preparation of final Accounts: The Income Statements: Introduction, Format of Profit and Loss Account, Profit and Loss account of a Manufacturing Concern, Appropriation of Profit, Advantages of Profit and Loss Account. Mechanics of Accounting: Introduction, Classification of Accounts, Double Entry System, Overview of Accounting cycle, Preparing journals, Subsidiary Books, Ledger, Preparation of Trial Balance, Accounting Errors and Their Rectification, Bank Reconciliation statement (BRS), Computerised Accounting. Fixed Assets and Depreciation Accounting: Introduction, Cost of Fixed Assets, Depreciation, Method of computing depreciation, Accounting Treatments for transactions, Impairment of Assets.

UNIT – III Inventory Valuation: Introduction, Record Keeping for Inventory, Perpetual inventory System, Inventory Valuation/Measurement, Methods of Valuation of Inventories,

Analysis of Inventories. Corporate Accounts: Introduction to Companies, Types of Companies, Shares and Share Capital, Issue of Shares. Share Issue: Payments in Installment, Buyback of Shares, Debentures and Bonds, Income Statement/Profit and Loss Account, Balance Sheet, Company Annual Report. Cash Flow Statement: Introduction to Cash Flow Statement, Cash and Cash Equivalents, Cash Flow Activities, Operating Activities, Some Special Items, Free cash Flow, Fund Flow Statement, Analysis of cash Flow Statement, Preparation of cash Flow Statement.

UNIT – IV Financial Statement Analysis: Introduction Techniques for financial Statement Analysis Horizontal Analysis: Comparative and Trend Statements, Vertical Analysis: Common Size, Liquidity Ratios: Current and Quick Ratio, Solvency Ratios: D/E, Interest Coverage, Profitability ratios: (GP,NP,EBIT,EBDITA,EPS), Return Ratios: ROI, ROE, Turnover Ratios, Analysis of Stock and Debtors, Working Capital Management, Stock Prices and Financial Data: P/E. Investments: Introduction, Financial Instruments, Assets and Liabilities, Joint Ventures, Subsidiaries and Associates, Consolidated Financial Statement, Business Combinations, Accounting for Investments, Contemporary Issues in Accounting : Introduction ,Foreign Currency Accounting , Creative Accounting, Forensic Accounting , Environmental Accounting, Lean Accounting ,Human Resource Accounting, Objectives of Human resource Accounting, HRA in India, Inflation Accounting, Responsibility Accounting, Transfer Pricing, Segment reporting, Extensible business Reporting Language(XBRL).

Paper – III: Fundamentals of Computer

UNIT – I Understanding the Computer: Introduction, Evolution of computers, Generation of computers, Classification of computers, Computing concepts, The computer system, Application of computers. Computer Organization and Architecture: Introduction, Central processing unit, Internal communications, Machine cycle, The bus, Instruction set. Memory and Storage Systems: Introduction, Memory representation, Random Access Memory, Read Only Memory, Storage systems, Magnetic storage systems, Optical storage systems, Magneto optical system, Solid-state storage devices, storage evaluation criteria.

UNIT – II Input Devices: Introduction, Keyboard, Pointing devices, Scanning devices, Optical recognition devices, Digital camera, Voice recognition system, Data acquisition sensors, Media input devices. Output Devices: Introduction, Display monitors, Printers, Impact printers, Non-impact printers, Plotters, Voice output systems, Projectors, Terminals. Computer Codes: Introduction, Decimal system, Binary system, Hexadecimal system, Octal system, 4-bit Binary Coded Decimal(BCD) Systems, 8-bit BCD Systems, 16-bit Unicode, Conversion of numbers

UNIT – III Computer Software: Introduction, Types of computer software, System management programs, System development programs, standard application programs, Unique application programs, Problem solving, Structuring the logic, Using the computer. Programming Languages: Introduction, History of programming languages, Generations of programming languages, Characteristics of good programming languages, Categorization of High-level languages, Popular High-level languages, Factors affecting the choice of languages, Developing a program, Running a program. Data Communication and Networks: Introduction, Data communication using modem, Computer network, Network topologies, Network protocol and software, Application of network.

UNIT – IV Operating Systems: Introduction, History of operating systems, Functions of operating systems, Process management, Memory management, File management, Device

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management, Security management, Types of operating systems, Providing user interface, Popular operating systems. Microsoft Software: Introduction, MS-DOS, MS Word systems, MS Excel systems, MS PowerPoint systems, MS Access systems, MS Publisher,

Paper - IV: Programming in 'C'

UNIT – I Data Types, Operators and some statements: Identifiers and keywords, Constants, C Operators, Type Conversion. Writing a Program in C: Variable declaration, Statements, Simple C Programs, Simple Input Statements, Simple Output Statements, and Features of stdio.h. Control Statements: Conditional Expressions, Loop Statements, Breaking control statements.

UNIT – II Function and Program Structures: Introduction, Defining a Function, Return Statement, Types of Functions, Actual & Formal Arguments, Local & Global Variables, Multifunction Program, and The Scope of Variables, Recursive Function, and ANSI Function Slandered. Arrays: Array Notation, Array Declaration, Array Initialization, Processing with Arrays, Arrays and Functions, Multidimensional Array, Character Array.

UNIT – III Pointers: Pointer Declaration, Pointer Arithmetic, Pointers and Functions, Pointers and Arrays, Pointer and Strings, Array of Pointers, Pointers to Pointers. More on Functions: Pre-processors, Macros, Header Files, standard Functions.

UNIT-IV Structures, unions and Bit Fields: Declaration of Structure, Initializing a Structure, Functions and Structures, Array of Structure, Arrays within Structure, Structure within structure, Pointer and ?Structure, Union, Bit Fields, Typedef Enumerations. Data File Operations: Review of input/output Functions, Opening and Closing of files, Simple File Operation, Structures and File Operation, Block Read/Write, More on File operations, Low level File operations, Random Access File processing.

BCCA Part – I

Semester – II

Paper - I: English – II (Business Communication)

UNIT- I Basic Ideas In The Study of Communication - Nature of Communication, Importance of Communication, Process of Communication, Barriers to Communication, Effective Communication, Communication Theories and Models, Audience Analysis, SWOT Analysis. Forms of Communication – Introduction to Classification of Communication, Verbal Communication-Written, Oral, Non-verbal Communication, Dimension/Direction of Communication, Formal and Informal Communication, Modern Forms of CommunicationFax, Internet/Email. Listening As A Tool of Communication – Introduction to Listening Skills, Approaches to Listening, Barriers to Effective Listening, Tips for Effective Listening. Group Communication – Introduction to Meaning and Definition of Group, Advantages of Group Decision-Making, Techniques of Decision-Making, Meetings, Notice, Agenda, Minutes, Conferences, Seminars, Symposia and Workshops. Business Letter Writing – Business Correspondence, Essentials of a Good Business Latter, Structure of a

Business Letter, Format of Business Letter, Tips for Clear Writing/Craft of Business Letter Writing

UNIT- II Enquiries, Quotations And Tender Notices - Enquiries, Quotations (Replies an Enquiries), Tender Notices. Placing Order and Their Fulfillment – Order, Fulfillment of Order. Complaints (Claims) And Adjustments – Complaints (Claim) Letters, Adjustment Letter (Replies to Complaints). Circular And Letters – Circular Letters, Sales Letters. Collection Letter – Introduction, Guideline for Writing Collection Letters, First Stage Collection Letter, Persuasive/Firm Reminder, Last Resort Letter/ Final Collection Letter
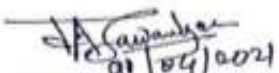
UNIT- III Export-Import Correspondence – The Number of Export-Import Correspondence, Export Procedure, Import Procedure, Terminology in Foreign Trade, Specimen Letters Correspondence With Banks – Introduction: General Instruction for Writing Banking Letters, Specimen Letters. Correspondence With Insurance Companies – Principles of Insurance, Drafting Insurance Letter, Specimen Insurance Letters. Job-Related Letters, Group Discussion, And Interviews – Job Application, CV (Biodata, Resume), Writing References, Group Discussion, Personal Interview, Appointment and Discharge Letters

UNIT- IV Correspondence With Public Authorities – Introduction, Correspondence With Government Departments, Correspondence With Income Tax and Sales Tax Authorities, Correspondence With Provident Fund(PF) Authorities, Correspondence With Postal Authorities. Internal Communication- Introduction, Memorandum, Office Order, Office Circular, Office Note, Correspondence With Branch Office. Precis And Summarising – What is Precis?, Uses of Precis, How to Write a Precis, Some Specimen Precis.Report And Personal Writing – Reports, Transmittal Letters, Proposals. Corporate Communication - Corporate Communication, House Journals, Corporate Brochures, Information Booklets, Press Releases and Press Conferences, Company Meeting, Agenda, Notice and Minutes, Relation, Basics of Advertisement, International Communication

Paper – II: Principles of Business Management

UNIT- I Nature And Functions Of Management – Importance Of Management, Definition Of Management, Management Function Or The Process Of Management, Levels Of Management, Organizational Or Business Functions, Role Of A Senior Management, Managerial Skills, Managerial Effectiveness, Management And Administration, Management- A Science Or An Art?, Management- A Profession?, Professional Management Vs Family Management, Management Of International Business. Development Of Management Thought- Early Classical Approaches, Neo-Classical Approaches, Modern Approaches. Planning- Nature Of Planning, Importance Of Planning, Types Of Plans, Steps In Planning, Strategic Planning Process, Limitation Of Planning, Making Planning Effective, Planning Skills, Strategic Planning In The Indian Industry. Decision Making- Meaning Of Decision, Types Of Decision, Steps In Relational Decision-Making, Rationality In Decision-Making, Environment Of DecisionMaking, Common Difficulties In Decision-Making.

UNIT- II Organization- What Is An Organization?, Process Of Organizing, Principles Of Organizing, Span Of Management, Departmentalization, Process Departmentalization, Purpose Departmentalization, Organization Structure, What Type Of Structure Is Best?, Emerging Organization Structures, Committees, Teams, International Organization Structures. Coordination – Distinction Between Coordination And Cooperation, Distinction Between Coordination And Control, Need For Coordination, Requisites For Excellent Coordination, Types Of Coordination, Techniques Of Coordination, Difficulties Of Coordination, Coordinating Global Operations. Informal Organization – Why Do Informal
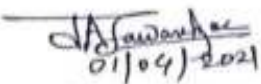
Group Forms?, Types Of Informal Groups, Stages Of Group Development, Distinction Between Formal And Informal Organization, Benefits Of Informal Organization To Its Members, Benefits Of Informal Organization To Its Management, Dysfunctional Effects Of Informal Organization, How To Minimize The Dysfunctional Effects Of Informal Organization?, Group Dynamics. Staffing- Importance And Need For Proper Staffing, Manpower Planning, Recruitment, Selection, Placement, Induction, Manpower Planning In India, Staffing From A Global Perspective. BCCA Syllabus RTMNU Page 20 of 76

UNIT- III Training And Development- Difference Between Training, Education And Development, Advantages Of Training. Steps In Setting Up A Training And Development Programme, Design And Development Of The Training Programme, Evaluation Of Training And Development, Executive Training Practices In India, Mentoring, Learning Organization, Knowledge Management. Performance Management- Purpose Of Appraisal, Steps In Designing Performance Management System, Criteria And Standards Of Performance Appraisal, Frequency Of Appraisal, Performance Appraisal Methods, Limitations Of Traditional Appraisal Methods, Post-Appraisal Interview, Appraisal Of Management, Performance Management In Indian Industries, Expatriate Performance Appraisal, Career Planning And Development, Appraisal Of Organizational Development. Compensation Plans- Classification Of Compensation, Primary Compensation, Monetary Incentive, Non-Monetary Incentive, Recognition As A Reward, Benefits, Wage Packet Of Indian Worker, International Compensation. Direction And Supervision- Requirements Of Effective Direction, Giving Orders, Motivation, Job Satisfaction, Organizational Commitment, Morale, First-Level Or Front- Line Supervision.

UNIT- IV Communication- Importance Of Communication, Purpose Of Communication, Formal Communication, Forms Of Communication, Informal Communication, The Communication Process, Barriers To Communication, Principles Of Effective Communication, Communication Networks, Checks On In-Plant Communication, Communication In Indian Industries. Leadership – Difference Between A Leader And A Manager, Characteristics Of Leadership, Functions Of A Leader, Traditional Approaches To Leadership, Situational Factors Determining Choice Of Leadership Style, New Approaches To Leadership, Leadership Assessment, Leadership Style In Indian Organization, Worker Participation In Management In India. Managerial Control- Steps In A Control Process, Need For Control System, Benefits Of Control, Essentials Of Effective Control System, Problems Of The Control System, Control Techniques. Organizational Change- Need For Planned Change, Managing Organizational Change, Requisites For Successful Planned Chase, Recent Planned Changes In The Corporate Sector In India.

Paper – III: Programming in 'C++'

UNIT – I Introduction to Object Oriented Programming: Introduction, What is Object Oriented Programming(OOP)?, Structured Procedural programming(SPP), Object Oriented Programming OOP, Characteristics of OOPs, Advantages of OOPs, Disadvantages of OOPs, Comparison of SPP and OOP, Steps in Developing OOP Programs, Structure of Object Oriented Programs, Object Oriented Languages, Importance of C++. Data Types, Operators and Expressions: Identifiers & Keywords, Data Types, C++ Simple Data Types, Literals, Variables, the Const Data type, C++ Operators, Type Conversion. Input and Output Streams: Comments, Declaration of Variables, the Main () Function, Simple C++ Programs, Program Termination, Features of IOStream, Keyboard and Screen I/O, Manipulator Functions, Input and Output (I/O) Stream Flags. Control Statements: Conditional Expressions, Loop Statements, Nested Control Structures, Breaking Control Statements.

UNIT – II Function and Program Structures: Introduction, Defining a Function, Return Statement, Types of Functions, Actual & Formal Arguments, Local & Global Variables, Default Arguments, Structure of C++ Program, Order of the Function Declaration, Manually invocated Functions, Nested Functions, Scope Rules, Side Effects, Storage Class Specifiers, Recursive Function, Pre-processors, Header Files, Standard Functions. Arrays: Introduction, Array Notation, Array Declaration, Array Initialization, Processing with Arrays, Arrays and Functions, Multidimensional Array, Character Array. Pointers and Strings: Introduction, Pointer Arithmetic, Pointers and Functions, Pointers to Functions, Pointers and Arrays, Array of Pointers, Pointers to Pointers, Pointer and Strings, Deciphering Complex Declarations. Structures, Unions and Bit Fields: Introduction, Declaration of Structure, Processing with Structures, Initialization of Structures, Functions and Structures, Array of Structure, Array within a Structure, Nested Structure, Pointer and Structure, Unions, Bit Fields, Typedef, Enumerations.

UNIT – III Classes and Objects: Introduction, Structures and Classes, Declaration of Class, Member Functions, Defining the Object of a Class, Accessing a Member of Class, Array of Class Objects, Pointer and Classes, Union and Classes, Classes within classes(Nested Class). Special Member Function: Introduction, Constructors, BCCA Syllabus RTMNU Page 22 of 76 Destructors, Inline Member Functions, Static Class Members, Friend Function, Dynamic Memory Allocations, This Pointer, Mutable. Single and Multiple Inheritance: Introduction, Single Inheritance, Types of Base Classes, Type of Derivation, Ambiguity in Single Inheritance, Array of Class Objects and Single Inheritance, Multiple Inheritance, Container Classes, Member Access Control.

UNIT-IV Overloading Functions and Operators: Function Overloading, Operator Overloading, Overloading of Binary Operators, Overloading of Unary Operators. Polymorphism and Virtual Functions: Polymorphism, Early Binding, Polymorphism with Pointers, Virtual Functions, Late Binding, Pure Virtual Functions, Abstract Base Classes, Constructors under Inheritance, Destructors under Inheritance, Virtual Destructors, Virtual Base Classes. Templates and Exception Handling: Function Template, Class Template, Overloading of Function Template, Exception Handling. Data File Operations: Opening and Closing of Files, Stream State Member Functions, Reding/Writing a Character from a File, Binary File Operations, Classes and File Operations, Structure and File Operations, Array of Class Objects and File Operations, Nested Class and File Operations. Random Access File Processing.

Paper - IV: E-Commerce and Web Designing

UNIT – I Introduction to Electronic Commerce Electronic Commerce : The Scope of Electronic Commerce, Definition of Electronic Commerce, Electronic Commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce, e-Commerce in Perspective. Business Strategy in an Electronic Age: The Value Chain, Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains. Competitive Advantage: Competitive Strategy, Porter's Model, First Mover Advantage, Sustainable Competitive Advantage, Competitive advantage using e-Commerce. Business Strategy: Introduction to Business Strategy, Strategic Implication of IT, Technology, Business Environment, Business Capability, Existing Business Strategy, Strategy Formulation and Implementation Planning, eCommerce Implementation, e-Commerce Evaluation. Case Study: e-Commerce in Passenger Air Transport: Choices, Airline Booking Systems, Competition and customer Loyalty, Web Booking Systems, Competitive Outcomes

UNIT – II Business to Business Electronic Commerce Inter Organizational Transactions: Inter Organizational Transactions, the Credit Transaction Trade Cycle, A Variety of Transaction, Pens and Things. Electronic Markets: Markets, Electronic Markets, Usage of Electronic Markets, Advantages and Disadvantages of Electronic Markets, Future of Electronic Markets. Electronic Data Interchange (EDI): Introduction to EDI, EDI definition, The Benefits of EDI, EDI Example. EDI:the Nuts and Bolts :, EDI technology, EDI Standards, EDI Communications, EDI Implementation, EDI Agreements, EDI Security, Nuts, Bolts and the Tool kit, EDI and Business :Organizations that use EDI, EDI Trading Patterns, EDI Transactions, EDI Adoption and EDI Maturity, IOS,EDI an Internet e-Commerce. Inter Organizational e-Commerce: Inter Organizational Transaction, Purchasing Online, After Sales Online, e-Commerce in Desk top Facilities Management, Pens and Things and the Web.

UNIT – III Business to Consumer Electronic Commerce BCCA Syllabus RTMNU Page 25 of 76 Consumer Trade Transactions: What you want, when you want it, Internet eCommerce, The e-Shop, Internet Shopping and the Trade Cycle, Other e-Commerce Technologies, Advantages and Disadvantages of Consumer e-Commerce, Consumer eCommerce at Pens and Things. The Elements of e-Commerce : Elements, e-Visibility, The e-Shop, Online Payments, Delivering the Goods, After Sales Service, Internet eCommerce Security, A Web Site Evaluation Model. E-Business: Introduction, Internet Bookshops, Grocery Supplies, Software Supplies and Support. Electronic Newspapers, Internet Banking, Virtual Auctions, Online Share Dealing, Gambling on the Net, eDiversity Introduction to the Internet: Computer in Business, Networking, Internet, Electronic Mail(E-Mail), Resource Sharing, Gopher, World Wide Web, Usenet, Telnet, Bulletin Board Service, Wide Area Information Service. Internet Technologies: Modem, Internet Addressing, Physical Connections, Telephone Lines, Internet Browsers, Internet Explorer, Netscape Navigator. Introduction to HTML: Designing a Home Page, History of HTML, HTML Generations, HTML Documents, Anchor Tag, Hyper Links, Sample Html Documents. Header and Body Sections: Header Section, Title, Prologue, Links, Colorful Web Page, Comment Lines, Some Sample Html Documents. Designing the body Section: Heading Printing, Aligning the Headings, Horizontal Rule, Paragraph Tab Setting, Image and Pictures, Embedding PNG Format Images.

UNIT – IV Ordered and Unordered Lists: Lists, Unordered Lists, Headings in a List, Ordered Lists, Nested List. Table Handling: Table, Table Creation in HTML, Width of the Table and Cells, Cells Spanning Multiple Rows/Columns, Coloring Cells, Columns Specification, Some Sample Tables. Dhtml and Style Sheets: Defining Styles, Elements of Styles, Linking a Styles Sheet to an HTML Document, In-Line Styles, External Styles Sheets, Multiple Styles. Frames: Frameset Definition, Frame Definition, Nested Framesets. A web Page Design Project: Frameset Definition, Animals, Birds, Fish. Forms: Action Attribute, Method Attribute, Enctype Attribute, Drop Down List, Sample Forms

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BCCA Part – II

Semester – I

Paper - I: Environmental Studies

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UNIT - I Multidisciplinary Nature of Environmental Studies- Environment, Environment Studies, Need for public Awareness, Environmental Degradation, Shelter Security, Economic Security, Social Security, Effects of Housing on Environment , Effects of Industry on

Environment, Natural Resources- Introduction, Types of Natural Resource, Forest Resources, Water Resources, mineral Resources, Food Security Resources, Energy resources, Land Resources, Conservation of Natural Resources, Sustainable Lifestyles, Sustainable Water Management(SWM), Biogeochemical Cycle.
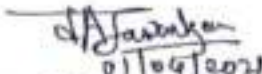
UNIT – II Ecosystems- Introduction to Ecology and Ecological Succession, Ecosystem, Food Chain, Ecological Pyramids, Types of Ecosystems, Forest Ecosystems, Aquatic Ecosystems, Grassland Ecosystem, Desert Ecosystem, Biodiversity and its Conservation- Biodiversity, Values or Benefits of Biodiversity, Biogeographic Zones of India, Hot Spots of Biodiversity, Endangered and Endemic Species, Rare and Threatened Species, Threats to Biodiversity, Human –Wildlife Conflicts, Conservation of Biodiversity.

UNIT – III Environmental Pollution and Its Effects- Introduction ,Requirements of a Nonpolluted Environment, Public Health Aspects, Air Pollution, Land Pollution, Land Pollution or Soil Pollution, Marine Pollution, Noise Pollution, Thermal Pollution, Hazardous Wastes, Nuclear Hazards (Radiation Pollution),Solid Waste and Its Management, Role of Individuals in Pollution Prevention, Disaster Management.

UNIT – IV -Social Issues and the Environment- Introduction, Sustainable Development, Urbanization, Water Conservation, Resettlement and Rehabilitation of People ; Its Problems and Concerns, Social Issues and The Environment, Wasteland Reclamation, ACTs for Environmental Protection, Carbon Credits, Industrial Symbiosis, Initiatives and Roles of Nongovernmental Organization (NGOs) in Environmental Protection, Issues Involved in Enforcement of Environmental Legislation ,Animal Husbandry. Human population and the Environment- Population Growth, Family Welfare Programs, Environment and Human Health, Fundamental Rights, Human Rights, Value Education, HIV/AIDS, Environmental Education, Women's Education, Role of Information Technology in Environment and Human Health.

Paper - II: Business Economics

UNIT – I Introduction: Economics And Business Economics - Introduction, What Is Economics, Definitions, Nature And Scope Of Business Economics, Some Economics Concepts Applied In Business Analysis. The Economy, Its Basic Problems And Price Mechanism :- Introduction, What Is An Economy?, How A Free Enterprise Economy Works, Kinds Of Economic Systems, Production Possibilities Of An Economy, Basic Problems Of An Economy, How Market Mechanism Solves The Basic Problems, All Is Not Well With Free Enterprise Economies, Role Of The Government In The Economy. Laws Of Demand And Supply And Market Equilibrium :- Introduction, The Concept Of Market, Demand Side Of The Market, Supply Side Of Market, Market Equilibrium, Stability Of Market Equilibrium. Theory of Consumer Demand: Analysis Of Individual Demand - Introduction, Meaning Of Individual Demand, Utility- The Basis Of Consumer Demand, Cardinal Approach To Consumer Demand, Ordinal Utility Approach To Consumer Demand –The Indifference Curve Approach, Comparison Of Cardinal And Ordinal Utility Approaches, Revealed Preference Theory, Consumer Surplus. Elasticity Of Demand :- Introduction, Meaning Of Demand Elasticity, Price Elasticity Of Demand, Cross-Elasticity Of Demand, Income-Elasticity Of Demand, Advertisement Elasticity Of Demand, Price Expectation-Elasticity Of Demand, Some Estimates Of Demand Elasticity. Demand Forecasting: - Introduction, Meaning And Purpose Of Demand Forecasting, Prerequisites Of Good Demand Forecasting, Methods Of Forecasting Demand, Concluding Remarks, Some Case Studies Of Demand Forecasting.

UNIT – II Production And Cost Analysis: Theory Of Production - Introduction, Some Basic Concepts, Production Function, Laws Of Production-Meaning And Kinds, Short-Run Laws Of Production, Long-Term Laws Of Production-I:Tools Of Analysis, Long-Term Laws Of Production-II: Laws Of Return To Scale, Laws Of Returns To Scale Through Production Function, Theory Of Cost - Introduction, Cost Concepts, Cost Function, Short-Run Cost-Output Relations, Long-Run Cost Output Relations, Economics And Diseconomies Of Scale, Modern Theory Of Cost. Market Structure And The Firm's Objectives - Introduction, Market Structure And Degree Of Competition, Market Structure And Pricing Decisions, The Firm And The Industry, Profit: Meaning And Concepts, Objectives Of Business Firms, A Reasonable Profit Target: A Pragmatic Approach, Profit As Control Measure. Price And Output Determination Under Perfect Competition - Introduction, What Is Perfect Competition? Features Of Perfect Competition, Price Determination Under Perfect Competition, Equilibrium Of The Firm In Short-Run, Derivation Of Supply Curve, Equilibrium Of Industry And Firm In Short-Run, Equilibrium Of The Firm And Industry In Long-Run, Long-Run Supply Curve Of The Industry.

UNIT – III Pricing Decisions Under Monopoly - Introduction, Definition And Features Of Monopoly, Sources And Kinds Of Monopolies, Revenue Curves Under Monopoly, Price And Output Determination In Short-Run, Two Common Misconceptions About Monopoly, There Is No Supply Curve In Short-Run, Monopoly Equilibrium In The Long-Run, Capacity Utilization Under Monopoly, Equilibrium Of Multiplant Monopoly, Price Discrimination Under Monopoly, Monopoly Vs. Perfect Competition, Application Of Monopoly Theory, Measures Of Monopoly Power, Government Regulation Of Monopoly Prices. Pricing Decision Under Monopolistic Competition - Introduction, Monopolistic Competition: Definition & Characteristics, Basic Elements Of Monopolistic Competition, Firms Equilibrium Under Monopolistic Competition, Excess Capacity Under Monopolistic Competition, Selling Cost And The Firm's Equilibrium: Non-Price Competition, Monopolistic Competition Vs Perfect Competition: A Comparison, Drawbacks Of Chamberlin's Theory Of Monopolistic Competition. Pricing Decisions Under Oligopoly - Introduction, Oligopoly: A Market Of Few Sellers, The Oligopoly Models: An Overview, A Classical Model Of Duopoly: Cournet's Model, Chamberlin's Model Of Oligopoly : The Small Group Model, Sweezy's Kinked-Demand Curve Model, Price And Output Determination In Collusive Oligopoly, Baumol's Theory Of Sales Maximization, Oligopoly And The Game Theory.

UNIT – IV Factor Market: Factor Demand And Supply - Introduction, Marginal Productivity Of Factor And Factor Demand, The Factor Supply: An Overview, Derivation Of Individual Labor Supply Curve, Derivation Of Market Labor Supply Curve. Theory Of Wage Determination - Introduction, Wage Determination Under Perfect Competition, Wage Differentials, Wage Determination Under Product Monopoly And Competitive Labor Market. Theory Of Rent, Quasi-Rent And Economic Rent - Introduction, Ricardian Theory Of Rent, Quasi-Rent: The Short-Term Rent On Fixed Factors, Factor Price, Transfer Earning And Economic Rent. Theory Of Interest - Introduction, Meaning Of Interest And Interest Rate, The Classical Theories Of Interest, The Loanable Fund Theory Of Interest, Keynesian Theory Of Interest. Theory Of Profit - Introduction, The Meaning Of Profit And Pure Profit, Accounting Profit Vs Economic Profit, Theories Of Profit, Does Profit Enter The Cost Of Production?.

Paper – III: Visual Basic Programming

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Unit – 1 Introduction To Visual Basic – Advantages Of Visual Basic, Hardware Requirement, Software Requirement, Installing Visual Basic, Starting Visual Basic, Exiting From Visual Basic. Working With Visual Basic Window Components – Menu Bar, Standard Toolbar, Project Explorer Window, Form Layout Window, Properties Window, Toolbox, Code Editor Window, Object Browser, Customizing The Application Development Environment, Editor Tab, Editor Format Tab, General Tab, Docking Tab , Environment Tab, Advance Tab. Working With Forms – Extension & With Function Of The File, Properties, Events And Method Of The Form. Using The Controls Of Visual Basic – Using Label Control, Using Commandbutton Control, Using Textbox Control, Using Option Button Control, Using Frame Control, Using Checkbox Control, Using Listbox Control, Using Combobox Control, Using Image Control, Using Scroll Control, Using Picture Control, Using Timer Control, Using Drivelistbox Control, Using Dirlistbox, Using Filelistbox Control, Using The Shape Control. Basic Programming Fundamentals – Scope Of Variables, Arrays, Operators, Decision Structure, Loop Structure.

Unit – II Working With Procedure, Functions And Modules – Procedure, Functions, Modules Accessing Files – Sequential Method, Random Method, Binary Method. Menus – Creating Menus, Creating Popup. Working With Common Dialog Control – Showopen, Showsave, Showprint, Showfont, Showcolor, Showhelp. Control Arrays – What Is Control Arrays?, Creating Control Arrays Using The First Method, Control Arrays Using The Second Method, Control Arrays Using The Third Method, Use Of Load And Unload Statement. Working With Custom Controls – Imagelist Control, Imagecombo Control, Treeview Control, Listview Control, Sorting Listitems, Toolbar Control, Statusbar Control.

Unit – III Creating Mdi Applications – Features Of Child Form, Arranginh Windows, Window List Creating An Application – Making An Exe File, Taking Printouts. Database Handling – Creating The Database, Accessing The Database By Using The Data Control, Using Ado Data Control. Working With Advance Data Controls – Datalist Control, Datacombo Control, Datagrid Controls, Setting The Properties Of The Datagrid Control, Mshflexgrid Control, Setting The Properties Of Mshflexgrid Control, Sorting A Column, Merging Cells, Description Of Merge Options, Using The Data Form Wizard, Working With Ms Chart BCCA Syllabus RTMNU Page 33 of 76 Layout. Working With Sql Statement – Displaying All Fields, Displaying Selected Fields, Modifing The Data, Creating Search Program, Creating Numeric Search Programs, Creating Complex Search Program.

Unit – IV Debugging Techniques – Syntax Errors, Logical Errors, Run-Time Error, Debug Toolbar, Assert Method, Debugging Mode, Step Into, Step Out, Run To Cursor, Set Next, Show Next, Locals Window, Immediate Window, Watch Window, Edit Watch, Deleting Watch Expression, Quick Watch, Call Stack. Handling Errors – How Run-Time Error Occurs?, Trapping Error, Handling Errors, Resuming Program Execution, Resume, Resume Next, Using Resume Next, Err Object, Properties, Methods. Working With Data Environment And Data Report – SQL Query Builder, Data Report, Use Of Controls, Using The Function Control, Using The Page Footer. Working With Com Components – What Is COM?, Introduction, Activex Controls, Using The Activex Control, Creating The Activex Control, Using The Activex Control In The Standard EXE, Activex Documents, Benefits, Creating An Activex Documents, Lifetime Events Of An Activex Documents, Describing About Hyperlink Object, Propertybag Object, Write Property, Read Property, Property Change Method, Inserting Menus, Activex Document Migration Wizard, Activex Code Components, Setting Project Properties

Paper – IV: Database Management System

UNIT – I Introduction: Concept of the System, Types of Decisions, Information System, Classification of information System, Conventional File Processing System, Database System, Components of Database Management System, Economic Justification of Database Approach. Database Concepts: Introduction, Data, Information, Metadata, Terminologies of Files, Association between Fields, Association between Files (Record Types), File Organization. Data Structure: Introduction, Location Methods, Types of Pointer, Interrecord Data Structure.

UNIT – II Data Models: Introduction, Classification of Data Model, Entity Relationship Model. Database Design: Introduction, Steps of Database Design, Normalization, Case Problem, Data Volume and Usage Analysis, Integrated Case Study-Database Design for Academic institution. Implementation Design: Introduction, Implementation Design, Guidelines for mapping Conceptual data model into a desired logical Data Model, Problem Design Guidelines.

UNIT – III Hierarchical Database Management Systems: Introduction, Information Management System (IMS), PC-FOCUS. Network Database Management Systems: Introduction, Integrated Database Management Systems (IDMS). Relational Database Management Systems: Introduction, Relational Database Languages, Interactive SQL.

UNIT-IV Distributed Database Management Systems: Introduction, Types of data Processing Application, Distinction between Centralized Databases and Decentralized Databases, Database Portioning, Case Study on Vertical Partitioning (Schema level Partitioning). Client/Server Systems: Introduction, Client/Server Concept, Examples of Client/Server Systems, Three-Tier Client/Server Architecture, Types of Client, Client/Server Protocols, Benefits and Drawbacks of Client/Server Systems, Design and Implementation Issues of BCCA Syllabus RTMNU Page 37 of 76 Client/Server Design. Database Operations and Maintenance: Introduction, Database Administration (DBA), Security Mechanisms, Concurrency Control, Database Recovery, Cryptography for Network Security

BCCA Part – II

Semester – II

Paper - I: Mathematics

UNIT – I Introduction Scope, Data Collection and Classification: Meaning of Statistics, Variable and Attribute, Primary Data and Secondary Data, Population (or Universe) and Sample, Complete Enumeration (or Census) and Sample Survey, Statistical Enquiry, Useful Terms Classification, Tabulation, Mechanical Tabulation. Permutation: Introduction, Fundamental Rules of Counting, Result on Permutation Examples. Combination: Introduction, Result of Combination. Set Theory :Method of Set Representation and Notation, Types of Sets, Venn Diagram, Set Operations, Union(Set Addition), Intersection (Set Multiplication), Complement, Difference, Examples on Set Operations, Laws of Algebra of Sets, Duality, Verification of Laws (Using Venn Diagram), Proof of the Laws of Set Algebra, Number of Elements in a set

UNIT – II Logarithm: Introduction, Definition of Logarithm, Laws of Logarithm, Common Logarithm and Natural Logarithm, Antilogarithm. Compound Interest: Interest Compounded Continuously, Amount at the Changing rates of Interest, Nominal and Effective rate of Interest, Growth and Depreciation. Other Useful Mathematics Devices: Rounding of Numbers, Absolute, Relative and Percentage Errors, Significant Figures, Some Short
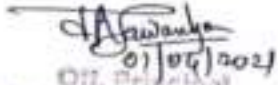
Processes of Calculation, Roots and Reciprocals Expressed as Power, A.P. Series and G.P. Series, Sum and Sum of the Squares of Numbers, Inequalities, Concept of Function, Polynomial, Sigma (Σ) Notation, Simple Interpolation

UNIT –III Charts and Diagrams: Objects of Diagrammatic Representation, Types of Charts and Diagrams. Frequency Distribution :Observation, Frequency, Simple Series(or BCCA Syllabus RTMNU Page 40 of 76 Ungrouped Data)and Frequency Distribution, Useful Terms Associated with Grouped Frequency Distributions, Construction of frequency Distribution, Cumulative Frequency Distribution, Relative Frequency Distribution, Diagrammatic Representation of Frequency Distributions, Frequency Curve. Measures of Central Tendency :Average or Measure of Central Tendency, Arithmetic Mean(A.M.), Important Properties of A.M., Simplified Calculation for A.M., Mean of Composite Group, Geometric Mean(G.M.), Properties of G.M., Harmonic Mean(H.M.), Advantages and Disadvantages of A.M.,G.M.,H.M., Relations between A.M.,G.M.,H.M., Median, Calculation of Median, Advantage and Disadvantage of Median, Mode, Calculation of Mode, Advantages and Disadvantages of Mode, Relation between Mean, Median, Mode, Partition Values - Quartiles, Deciles, Percentiles, Calculation of Partition Values. Measures of Dispersion :Meaning and Necessity of _Measures of Dispersion, Range, Quartile Deviation (Or Semi – Interquartile Range), Mean Deviation (Or Mean Absolute Deviation), Standard Deviation(S.D.), Important Properties of S.D., Calculation of Standard Deviation (σ), S.D. of Composite Group, Relation between S.D. and Other Measures, Relative Measure of Dispersion.

UNIT- IV Moments, Skewness and Kurtosis :Moments, Relation between central and NonCentral moments, Beta coefficients and Gamma-coefficients, Standardized Variable, Moments of Frequency Distributions, Skewness, Kurtosis. Curve Fitting :Curve Fitting, Straight Line and Parabola, Free- hand Method of Curve Fitting, Method of Least squares, Fitting Straight line, Simplified Calculations, Fitting Parabola, Fitting Exponential and Geometric Curves. Correlation and Regression :Concepts of _correlation _and _Regression', Bivariate Data, Bivariate , Frequency Distribution, Scatter Diagram, Correlation, Covariance, Correlation Coefficient(r), Properties of Correlation coefficient, Calculation of r, Interpretation and use of r, Variance of the Sum (Difference)of Two Series, Regression, Properties of Linear Regression, Explained Variation and Unexplained Variation, Regression Curve in Bivariate Frequency Distribution , Rank Correlation. Time Series : Meaning and Necessity of _Time Series Analysis', Components of Time Series, Adjustments to Time Series Data, Secular Trend, Measurement of Trend, Monthly Trend from Annual Data, Seasonal Variation, Measurement of Seasonal Variation, Cyclical Fluctuation, Business Forecasting, Exponential Smoothing. Probability Theory :Introduction, Random Experiment, Outcome, Event, Important Terminology, Techniques of Counting, Classical (or'a Priori')Definition of Probability, Theorems of Probability, Draw without Replacement, Repeated Trials-Drawing with Replacement, Bayes' Theorem Other Approaches to Probability Theory, Set and Probability, Finite Probability Space and Assignment of Probabilities, Finite Equiprobable Sample Space and Classical Definition, Conditional Probability, Independent Events.

Paper - II: Business Law

UNIT - I THE INDIAN CONTRACT ACT, 1872 Meaning Of Essentials Of Contract, Offer And Acceptance, Capacity Of Parties, Considerations, Free Consent, Legality Of Object And Consideration, And Agreements Opposed To Public Policy, Void Agreement And Contingent Contracts, Performance Of A Contract, Discharge Of A Contract, Remedies For Breach Of
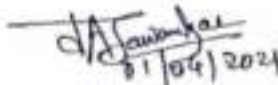
Contract, QuasiContracts, Indemnity And Guarantee, Bailment And Pledge, Contract Of Agency.

UNIT- II THE SALE OF GOODS ACT, 1930:- The Sale Of Goods Act,1930, Contract Of Sale, _Sale' And _Agreement To Sell' Distinguished, Meaning & Types Of Goods, Sale/Agreement To Sell, Price. Condition And Warranties-Meaning, Condition & Warranty Distinguished, Express And Implied Conditions And Warranties, Doctrine Of Caveat Emptor. Transfer Of Property- Meaning, Rules Regarding To The Transfer Of Property, Transfer Of Property In Specific Or Ascertained Goods, Transfer Of Property In Unascertained Goods And Future Goods, Rules Relating To Transfer Of Property Of Goods Sent _On Approval' Or _On Sale Or Return', Delivery. Rights Of Unpaid Seller - Meaning, Right Of Lien, Right Of Stoppage Of Goods In Transit, Lien And Stoppage In Transit Distinguished, , Effect Of Sub-Sale Or Pledge By Buyer Upon The —Two Rights Of The Unpaid Sellerl, Right Of Resale, Rights Of Seller And Buyers, Right Of Unpaid Sellers Against Buyer Personality, Auction Sale. THE INFORMATION TECHNOLOGY ACT, 2000 :- Meaning, objectives, scheme, scope, provision relating to electronic signature, provision relating to electronic governance, acknowledgement and dispatch of electronic records, secure electronic records and secure electronic signature, regulation of certifying authorities, electronic signature certificates, duties of subscribers, penalties, compensation and adjudication, the cyber appellate tribunal, offences, constitution of advisory committee, power of controller to make regulations.

UNIT- III BCCA Syllabus RTMNU Page 42 of 76 THE INDIAN PARTNERSHIP ACT, 1932: Meaning & Essentials Of Partnership, CoOwnership, Partnership Deed, Registration Of Firm, Types Of Partnership On The Basis Of Duration, Types Of Partners, Position Of Minor As A Partner, Mutual Rights And Duties, Relation Of Partners With Third Parties, Implied Authority Of Partners, Reconstitution Of Firms, Dissolution Of Firm, Settlement Of Accounts, Public Notice. THE LIMITED LIABILITY PARTNERSHIP ACT, 2008 (LLP):- Meaning & Features Of LLP, Comparison Between Existing Partnership & LLP, Comparison Between Company & LLP, Minimum No. Of Partners, Designated Partners, Incorporation Document, Incorporation By Registration, Effects Of Registration, Registered Office Of LLP & Change Therein, Name Of LLP and change therin, partners of LLP and change therin, cessation of partnership interest, partner as agent of LLP And Not Of Other Partners, Extent Of Liability Of LLP, Extent Of Liability Of Partner, Unlimited Liability In Case Of Fraud, Whistle Blowing, Contribution. Account, Audit And Taxation :- Maintenance Of Books Of Account, Other Records And Audit, Etc, Annual Return, Parteners Transferable Interest, Taxation of LLP, Conversion From Firm Into LLP, Conversion From Private Co. Into LLP, Conversion From Unlisted Public Co. Into LLP , Winding Up Of LLP, compulsory winding up, commencement of winding up by tribunal, voluntary winding up of a LLP.

UNIT- IV The Negotiable Instruments Act, 1881 (Part-I) :-Negotiable instrument, promissory note, bill of exchange, acceptance, distinction between bill of exchange & promissory note, cheque, distinction between a cheque and bill of exchange, crossing, bouncing or dishonor cheque, holder & holder in due course, distinction between holder & holder in due course, negotiation and assignment, distinction between negotiation and assignment, endorsement, material alteration. The Negotiable Instruments Act, 1881 (Part-II):- liabilities of various parties, proportionate in case of partial failure of consideration, presentment for acceptance, presentment for payment, acceptance for honour, payment for honour, dishonor of bill, notice of dishonor, rights of holder in case of instrument acquired after dishonor or after maturity, noting and protesting, drawee in case of need, discharge of an instrument, discharge of a

parity, distinction between discharge of an instrument & discharge of a parity, hundi, types of hundies.

Paper - III: Core Java

UNIT- I Getting Started - The HelloWeb Applet, What is Java?, Why Learn Java, Installing and Setting Up the Java SDK, Writing Your First Application, Learning Java Syntax Basics, Writing Your First Applet! Variables, Data Types, and Simple I/O – The Project: the NameGame Application, Variables and Data Types, Working with Numbers, Getting Simple User Input, Strings and String Operations, Getting Back to the Name Game. The Fortune Teller: Random Numbers, Conditionals, and Arrays – The Project: the Fortune Teller, Generating Random Numbers, Controlling the Random Numbers Range, The If Statement, The if-else Statement, Using the Switch Statement, Understanding the Arrays, Back to the Fortune Teller.

UNIT- II Using Loops and Exception Handling – The Project: The NumberGuesser, Counting Forward with Loops, Skipping Values, Counting Backwords, Nested For Loops, Looping on Arrays, Using the while loop, Exception Handling, Back to the NumbersGuesser Program. Blackjack: Object-Oriented Programming – The Project: The BlackJack Application, Understanding Object-Oriented Concept, Examining Member Variables, Defining and Using Methods, Understanding Access Modifiers, The Card and CardDeck Class, Extending a Class, Back to the BlackJack Game. Creating a GUI Using the Abstract Windowing Toolkit – The Project: MadLib Program, The java.awt Package, Using Frames, Using Components, Back to the MadLib Game Application.

UNIT- III Advance GUI: Layout Managers and Events Handling – The Project: the AdvancedMadLib Application, Using Layout Managers, Handling AWT Events, Getting Back to the AdvancedMadLib Application. Writing Applets – The Project: QuizShow Applet, Understanding Applets, Including an Applet in a Web Page, Learning Applet Methods: init(), start(), stop(), and destroy(), Printing Status Messages, Writing Java Programs that Can Run as Applets or Applications, Using Sounds and Images, Back to the QuizShowApplet Applet.

UNIT- IV BCCA Syllabus RTMNU Page 44 of 76 The Graphics Class: Drawing Shapes, Images, and Text – The Project: Memory Game, The Graphics Class, Fonts and FontMatrics, Drawing Images, Using the Color Class, Getting Back to the Memory Game. Custom Events Handling and File I/O – The Project: The Block Game, Building the Block Class, Creating the BlockGrid Class, Building the PlayArea Event Model, Creating the PlayArea Class, Creating the ScoreInfoPanel Class, Creating the Block Game Application. Creating Your Own Components and Packages – The Project: MinePatrol, Creating Lightweight Components, Preparing to Create the jpr.lightweight Package, Building the MineCell Classes, Creating the Mine Field Classes, Creating the MinePatrol Application.

Paper - IV: PHP & MySQL

UNIT- I Getting Started With PHP- Basic HTML Syntax, Basic PHP Syntax, Using FTP, Testing Your Scripts, Sending Text To The Browser, Using The PHP Manual, Sending HTML To The Browser, Adding Comment To The Script, Basic Debugging Steps. Variables- What Are Variables?, Variable Syntax, Types Of Variables, Variable Values, Understanding Quotation Marks. HTML Forms And PHP- Creating A Simple Forms, Choosing A Form Data In PHP, Displaying Errors, Error Reporting, Manually Sending Data To A Page. Using Numbers- Creating The Forms, Performing Arithmetic, Formatting

Numbers, Understanding Precedence, Incrementing And Decrementing A Number, Creating Random Numbers.

UNIT- II Using Strings- Creating The HTML Forms, Concatenating Strings, Handling Newlines, HTML And PHP, Encoding And Decoding Strings, Finding Substrings, Replacing Parts Of A String. Control Structures- Creating The HTML Forms, The if Conditional, Validation Functions, Using Else, More Operators, Using elseif, The Switch Conditional, The For Loop. Using Arrays- What Is An Array, Creating An Array, Adding Items To An Array, Accessing An Array From A Form.

UNIT- III Creating Web Applications- Creating Templates, Using External Files, Using Constants, Working With The Date And Time, Handling HTML Forms With PHP, Making Forms Sticky, Sending Email, Output Buffering, Manipulating HTTP Headers. Cookies And Sessions- What Are Cookies?, Creating Cookies, Reading From Cookies, Adding Parameters To Cookies, Deleting A Cookie, What Are Sessions?, Creating Session, Accessing Session Variables, Deleting Session. Creating Functions- Creating And BCCA Syllabus RTMNU Page 48 of 76 Using Simple Functions, Creating And Calling Functions That Take Arguments, Setting Default Arguments Values, Creating And Using Functions That Return A Value, Understanding Variable Scope.

UNIT- IV Files And Directories- File Permissions, Writing To Files, Locking To Files, Reading From Files, Handling File Uploads, Navigating Directories, Creating Directories, Reading Files Incrementally. Intro To Database- Introduction To SQL, Connecting To MYSQL, MYSQL Error Handling, Creating And Selecting A Database, Creating A Database, Inserting Data Into A Database, Securing Query Data, Retrieving Data From A Database, Deleting Data In A Database, Updating Data In A Database. Putting It All Together- Getting Started, Connecting To The Database, Writing The User-Defined Function, Creating The Template, Logging In, Logging Out, Adding Quotes, Listing Quotes, Editing Quotes, Deleting Quotes, Creating The Home Page.
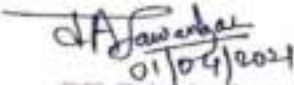
BCCA Part – III

Semester – I Paper - I: Computerized Accounting using Tally

UNIT-I Introduction to Tally.ERP 9- Features of Tally, Enhancement in Tally.ERP 9, Installation Procedure of Tally.ERP 9, Opening Tally.ERP 9, Components of the Tally.ERP 9 Window, Creating a Company. Stock and Godown in Tally- Stock Groups, Stock Categories, Stock Items, Units of Measure, Godowns.

UNIT-II Groups, Ledgers, Vouchers and Orders- Introducing Groups, Introducing Ledgers, Introducing Vouchers, Introducing Purchase Orders, Introducing a Sales Order, Introducing Invoices. Reports in Tally.ERP 9- Working with Balance Sheet, Working with Profit & Loss A/c Report, Working with Stock Summary Report, Understanding Ratio Analysis, Working with Trial Balance Report, Working with Day Book Report.

UNIT-III Exploring Payroll in Tally.ERP 9- Working with Payroll Vouchers, Defining Payroll Reports, Working with Statements of Payroll Report, Describing Salary Disbursement. Taxation- Indian Tax Structure, Tax Deducted at Source in Tally.ERP 9, Create a Tax Ledger, TDS Vouchers, Printing a TDS Challan, Tax Collected at Source in Tally.ERP 9, BCCA Syllabus RTMNU Page 51 of 76 TCS Reports in Tally.ERP 9, Calculating VAT in Tally.ERP 9, VAT Classification, VAT Vouchers, VAT Reports in Tally.ERP 9, Service Tax.

UNIT-IV Important Features of Tally.ERP 9- Taking Backup in Tally.ERP 9, Restoring Data in Tally. ERP 9, Using E-mail in Tally.ERP 9, Migrating Data from Tally 7.2 to Tally.ERP 9, Tally.NET in Tally.ERP 9- Configuring the Tally.NET Feature, Assigning Security Levels, Creating Security Controls, Connecting a Company to the Tally.NET Server, Logging as a Remote User.

Paper - II: VB.Net

UNIT- I Welcome to Visual Basic.NET – Windows Versus DOS Programming, Installing Visual Basic.NET, The Visual Basic.NET IDE, Creating a Simple Application, Using the Help System. The Microsoft.NET Framework – Microsoft's Reliance on Windows, Writing Software for Windows, Common Language Runtime, The Common Type System and Common Language Specification. Writing Software – Information and Data, Variables, Comments and Whitespaces, Data Types, Sorting Variables, Methods. Controlling the Flow – Making Decisions, The if Statement, Select Case, Loops.

UNIT- II Working with Data Structure – Understanding Array, Understanding Enumerations, Understanding Constants, Structures, Working with Collection and Lists, Building Lookup Tables with Hashtable, Advanced Array Manipulation. Building Windows Application – Responding to Events, Building a Simple Application, Creating Complex Applications, Using Multiple Forms. Displaying Dialog Boxes – The MessageBox Dialog box, The OpenDialog Control, The SaveDialog Control, The FontDialog Control, The ColorDialog Control, The PrintDialog Control.
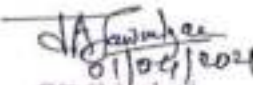
UNIT- III Creating Menu – Understanding Menu Features, Creating Menu, Context Menu. Debugging and Error Handling – Major Error Types, Debugging, Error Handling. BCCA Syllabus RTMNU Page 58 of 76 Building Objects – Understanding Objects, Reusability, Our First Object, Constructor, Inheritance, The Framework Classes.

UNIT- IV Accessing Database – What is Database, SQL Select Statement, Queries in Access, Data Access Components, Data Binding. Database Programming with SQL Server and ADO.NET –ADO.NET, The ADO.NET Classes in Action, Data Binding. Deploying Your Application – What is Deployment?, Creating a Visual Studio .NET Setup Application, Assemblies as Installers, The Core of Deployment, Deploying Different Solution, Advance Deployment Option.

Paper - III: System analysis & Design

UNIT- I System Concept And The Information Systems Environment- Introduction, The Systems Concept, Characteristics Of A System, Elements Of A System, Types Of A System. The System Development Life Cycle - Introduction, System Development Life Cycle, Considerations for the Candidate System, Prototyping. The Role Of System Analyst- Introduction, Definition, Historical Perspective, What Does It Take To Do Systems Analysis?, The Multifaceted Role Of The Analyst, The Analyst/User Interface, The Place Of The Analyst In The MIS Organization, Rising Positions In System Development, Conclusions.

UNIT- II System Analysis- System Planning And The Initial Investigation- Introduction, Bases For Planning In System Analysis, Initial Investigation. Information GatheringIntroduction, What Kinds Of Information Do We Need?, Where Does Information Originate?, Information Gathering Tools. The Tools Of Structured AnalysisIntroduction,

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S.S. Manter College, Nagpur

What Is Structured Analysis?, The Tools Of Structured Analysis. Feasibility Study-Introduction, System Performance Definition, Feasibility Study.

UNIT- III System Design- The Process And Stages Of System Design- Introduction, The Process Of Design, Design Methodologies, Major Development Activities, Audit BCCA Syllabus RTMNU Page 62 of 76 Consideration. Input/output And Forms Design-Introduction, Input Design, Output Design, Forms Design. File Organization And Data Base Design- Introduction, File Structure, File Organization, Data Base Design, The Role Of The Data Base Administrator.

UNIT- IV System Implementation- System Testing And Quality Assurance- Introduction, Why System Testing?, What Do We Test For?, The Test Plan, Quality Assurance, Trends In Testing, Role Of Data Processing Auditor. Implementation And Software Maintenance-Introduction, Conversion, Combating Resistance To Change, PostImplementation Review, Software Maintenance. Hardware/ Software Selection And The Computer Contract-Introduction, The Computer Industry, The Software Industry, A Procedure For Hardware/ Software Selection, Financial Considerations In Selection, The Used Computer, The Computer Contract.
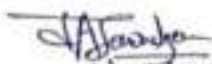
Paper - IV: Cost & Management Accounting

UNIT- I Introduction to Cost and Management Accounting: Accounting Framework And Taxonomy, From Cost Accounting To Cost Management, The Dimensions Of Management Accounting. Forces Shaping Business Environment And Their Effect On Cost And Management Accounting: Drivers Defining The Future Of Business And Accounting, Trends In Cost And Management Accounting , Evolving Role Of Cost And Management Accountants, Profession Of Cost And Management Accountants.

UNIT- II Strategic Management Accounting: Linking Strategy to Management Accounting Value Chain for Strategic Management Accounting, Life Cycle Costing, Target Costing, Kaizen Costing. Cost Measurement and Estimation: Definition and Measurement Of Cost, Costs On Financial Statements, The Statements Of Financial Position, The Income Statement, Cost Classification, Cost Estimation Methods.

UNIT- III Costing Systems: Alternative Cost Accumulation Systems—Contingency Based Approach To Accounting, Levels Of Costing Systems, Income Analysis Under Alternative BCCA Syllabus RTMNU Page 63 of 76 Costing Systems, Reconciling Income Under Alternative Costing Systems, Impact Of Just In Time (JIT) Inventory System. Job Order Costing: An Overview Of Traditional Costing Systems, Job Order Costing System For Manufacturing Companies, Job Order Costing System For Service Companies, Job Order Costing For Planning Purposes.

UNIT- IV Process Costing: Product And Cost Flows Through Process Costing System, Calculating Unit Cost, Process Costing Methods, Production Cost Report, Operation Costing. Accounting For By-Products, Allocation Of Support Service Costs. ActivityBased Costing And Customer Profitability Analysis: Traditional Volume-Based Costing, Activity Based Costing (abc), Comparision Of Traditional Volume-Based With The Activity-Based Costing, Advantage And Disadvantages Of Activity-Based Costing, Activity-Based Management(ABM), Scope And Advances In Activity Based Costing, Customer Profitability Analysis.

BCCA Part – III Semester – II Paper - I: C#.Net

UNIT - I Introducing C# - What is C#?, Evaluation of C#, Characteristics of C#, Application of C#, How does C# Differ from C++?, How does C# Differ from Java?, Understanding .NET: The C# Environment – The .NET Strategy, The Origin of .NET Technology, The .NET Framework, The Common Langue Runtime, Framework Base Class, User and Program Interface, Visual Studio .NET, .NET Languages, Benefits of the .NET Approach, C# and .NET. Overview of C# - Introduction, A Simple C# Program, Namespaces, Adding Comments, Main Running Value, Using Aliases for Namespaces Classes, Passing String Objects to WriteLine Method, Command Line Argument, Main with Class, Providing Interactive Input, Using Mathematical Function, Multiple Main Methods, Compile Time Error, Program Structure, Program Coding Style. Literals, Variables and Data Types – Introduction, Literals, Variables, Data Types, Value Types, Reference Type, Declaration Types, Initialization of Variables, Default Value, Constant Variable, BCCA Syllabus RTMNU Page 66 of 76 Scope of Variables, Boxing and Unboxing. Operators and Expressions – Introduction, Arithmetic Operators, Relational Operators, Logical Operators, Assignment Operators, Increment and Decrement Operators, Conditional Operators, Bitwise Operators, Special Operators, Arithmetic Expressions, Evaluation of Expressions, Precedence of Arithmetic Operators, Type Conversion, Operator Precedence and Associativity, Mathematical Function.

UNIT - II Decision Making and Branching – Introduction, Decision Making with if Statement, Simple if Statement, The if…else Statement, The else if Ladder, The Switch Statement, The ? : Operator, Decision Making and Looping – Introduction, The while Statement, The do Statement, The for Statement, The foreach Statement, Jumps in Loops. Methods in C# - Introduction, Declaring Methods, The Main Method, Invoking Methods, Nesting of Methods, Method Parameters, Pass by Value, Pass by Reference, The Output Parameters, Variables Argument List, Methods Overloading. Handling Arrays – Introduction, One-Dimensional Array, Creating an Array, Two-Dimensional Array, Variable-Size Arrays, The System.Array Class, ArrayList Class. Manipulating Strings – Introduction, Creating String, String Methods, Inserting String, Comparing String, Finding String, Mutable String Arrays of String, Regular Expressions.

UNIT - III Structures and Enumerations – Introduction, Structurs, Structs with Methods, Nested Structs, Difference between Classes and Structs, Enumerations, Enumerator Base Type, Enumerator type Conversion. Classes and Objects - Introduction, Basic Principle of OOP, Defining a Class, Adding Variables, Adding Methods, Member Access Modifiers, Creating Objects, Accessing Class Members, Constructors, Overloaded Constructors, Static Members, Static Constructors, Private Constructors, Copy Constructors, Destructors, Member Initialization, The This Reference, Nesting of Members, Constant Members, Read-only Members, Properties, Indexers. Inheritance and Polymorphism – Introduction, Classical Inheritance, Containment Inheritance, Defining a Subclass, Visibility Control, Defining Subclass Constructors, Multilevel Inheritance, Hierarchical Inheritance, Overriding Methods, Hiding Methods, Abstract method, Sealed Class: Preventing Inheritance, Sealed Methods, Polymorphism.

UNIT - IV Interface: Multiple Inheritance – Introduction, Defining an Interface, Extending Interface, Implementing Interface, Interface and Inheritance, Explicit Interface Implementation, Abstract Class and Interface. Operator Overloading – Introduction, Overloadable Operators, Need for Operator Overloading, Defining Operator Overloading, Overloading Unary Operator, Overloading Binary Operator, Overloading Comparison Operator. Managing Errors and Exceptions – Introduction, What is Debugging?, Types of Errors, Exceptions, Syntax of Exception Handling Code, Multiple Catch Statements, The

Exception Hierarchy, General Catch Handler, Using Finally Statement, Nested Try Blocks, Throwing Our Own Exceptions, Checked and Unchecked Operators, Using Exceptions for Debugging.

Paper - II: Python

UNIT - I Getting Started - Introducing python, Installing python on windows, Installing python on Linux, Meeting the interpreter, Writing your first program, Employing variables, Obtaining user input, Correcting Errors. Performing operations - Doing arithmetic, Assigning values, Comparing Values, Assessing logic. , Examining Conditions, Setting precedence, Casting data types, Manipulating bits. Making statements - Writing lists, Manipulating lists, Restricting lists, Associating list elements, Branching with if, Looping while true, Looping over items, Breaking out of loops.

UNIT - II Defining Functions-Understanding scopes, Supplying arguments, Returning Values, Using callbacks, Adding placeholders, Producing generators, Handling exceptions, Debugging assertions. Importing Modules - ,Storing functions, Owning function names, Interrogating the system, Performing mathematics, Calculating decimals, Telling the time, Running a timer, Matching patterns.
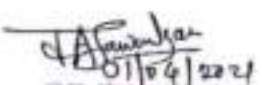
UNIT - III Managing strings -Manipulating strings, Formatting strings, Modifying strings, Accessing files, Reading and writing files, Updating file strings, Pickling data Programming objects, Encapsulating data, Creating instance objects, Addressing class attributes, Examining built-in attributes, Collecting garbage, Inheriting features, Overriding base methods, Harnessing polymorphism. BCCA Syllabus RTMNU Page 69 of 76

UNIT - IV Processing requests-Sending responses, Handling values, Submitting forms, Providing text areas, Checking boxes, Choosing radio buttons, Selecting options, Uploading files Building interfaces-Launching a window, Responding to buttons, Displaying messages, Gathering entries, Listing options, Polling radio buttons, Checking boxes, Adding images Developing applications- Generating random numbers, Planning the problem, Designing the interface, Assigning static properties, Initializing dynamic properties, Adding runtime functionality, Testing the program, Freezing the program, Deploying the application.

Paper - III: Entrepreneurship Development

UNIT - I Entrepreneur: Introduction, Evolution of the concept of Entrepreneur, Characteristics of successful Entrepreneurs, The charms of becoming Entrepreneur, The Entrepreneurial decision process, Functions of Entrepreneur, Need of Entrepreneur, Types of Entrepreneurs, Distinction between an Entrepreneur and a Manager, Intrapreneur, social Entrepreneur Entrepreneurship: Concept of Entrepreneurship, Growth of Entrepreneurship in India, Role of Entrepreneurship in economic development. Women Entrepreneurship: Concept of women Entrepreneur, Functions of women Entrepreneurs, Growth of women Entrepreneurship in India, Problems of women Entrepreneurs, Developing women Entrepreneurship. Rural Entrepreneurship: Meaning of rural Entrepreneurship, Need of rural Entrepreneurship, Rural Entrepreneurship/ Industrialization in retrospect, Problems of rural Entrepreneurship, How to develop Rural Entrepreneurship?. Tourism Entrepreneurship: Meaning of tourism Entrepreneurship, The perspective, Tourism enterprise, Entrepreneur and Entrepreneurship, Policy Measures of Tourism Entrepreneurship in India.

UNIT - II Agri-Preneurship: Introduction, Need for developing Agri-Preneurship in India, Opportunities for developing Agri-Preneurship, Challenges involved in developing Agri-

Preneurship. Social Entrepreneurship: Introduction, Meaning of Social Entrepreneurship, The Perspective of Social Entrepreneurship. Family Business: Introduction, Manning of family business, Types of family business, family business in India: A Historical Perspective, Advantages of family business, Disadvantages of family business, Major challenges faced by family business in India. Factors affecting Entrepreneurship growth: Factors affecting Entrepreneurship, Government Actions. Entrepreneurial Motivation: Meaning of Entrepreneurial Motivation, Motivational Cycle or Process, Theories of Entrepreneurial Motivation. Entrepreneurial Competencies: Meaning of Entrepreneurial Competency, Major Entrepreneurial Competencies, Developing Entrepreneurial Competencies.

UNIT - III Entrepreneurship Development Programmes (EDPs):Meaning of EDP, Need of EDPs, Objectives of EDPs, Entrepreneurship Development Programmes in India: A Historical Perspective, Course contents and curriculum of EDPs, Phase of EDP, Evaluation of EDPs, and Problems of EDPs. Micro and small enterprises: Small enterprise: Meaning & Definition, Micro & Macro units, Essentials, features & Characteristics, Relationship between Micro and Macro enterprises, Rationale behind Micro & small enterprises, Scope of Micro and Small Enterprises, Objectives of Micro enterprises, Enterprise & Society, Role of Micro enterprise in economic development, Quick Estimates of 4th All India Cenus of MSME, Package for promotion of Micro and Small-scale enterprise. Opportunity Identification and Selection: Need for Opportunity Identification and Selection, Environmental dynamics and change, Business opportunities in various sectors, Identification of business opportunity, Opportunity selection, Steps in setting up of a small business enterprise. Formulation of Business Plans: Meaning of business plan, Contents of business plan, Significance of business plan, Formulation of business plan, Planning Commission's Guidelines for formulating Project report 310, Network Analysis, Common Errors in business plan formulation.

UNIT - IV Project Appraisal: Concept of Project Appraisal, Methods of Project Appraisal, and Environmental clearance of SMEs. Financing of Enterprise: Meaning and need for financial planning, Source of Finance, Capital Structure, Capitalization, Term Loans, Sources of short-term Finance, Venture Capital, Export Finance. Forms of business Ownership: Sole Proprietorship, Partnership, Company, Cooperative, And Selection of an appropriate form of ownership structure, Ownership Pattern in Micro-sale Enterprise in India: The Empirial Evidence. Institutional Finance of entrepreneurs: Need for institutional finance, Institutional Finance. Institutional Support to Entrepreneurs: Need for institutional support, Institutional Support to small Entrepreneurs.

The syllabus once introduced continued for three years, but was reduced in a phased manner after the batch in which this was first introduced passed the final year of the BCCA degree course.

Nagpur.

Date: 21/09/2017

To
Mr. Hiren Shah
Asst Professor,
S.S.Maniar College of Computer and Management
Nagpur.

Sub.: Request to reduce the syllabus content of BCCA

Dear Mr. Hiren Shah,

This is to inform you that all the teachers teaching BCCA are complaining that the new syllabus of BCCA recently introduced by the Board of Studies of which you are a member is too extensive and almost impossible to cover within the span of one year. All faculty members teaching the subjects are finding great difficulty in covering the same within the given time frame.

You are requested to put up the matter in the next Board of studies and kindly do the needful.

Thanking you in anticipation,

Yours sincerely,

[Vrushali Parkhi]
Head of the Department
BCCA.
Head of the Department of Brcn
Maniar College of Computer & Management

25/03/2021
Off. Professor
S.S. Maniar College, Nagpur

2.BCCA Reduced Syllabus

Detailed syllabus for theory papers

(BCCA)Part-I

Semester – I

Paper – I

Course name - English and Business Communication – I

Course code - 1T1

UNIT I A. Comprehension of an Unseen Passage B. Enriching Vocabulary: Synonyms and Antonyms, Single Word for a Group of Words, Change of Word from Noun to Adjective &vice-versa.

UNIT II Business Correspondence: Application for Employment, Job Offer Letters, Sales letters, Claim and Adjustment Letters

UNIT III Communication Process: Sender, Channel, Message, Receiver and Response Types of Communication: a. According to mode: a. Oral b. Written b. According to Medium: a. Electronic b. Print c. According to number of participants: a. Dyadic b. Group d. According to Direction: a. One-way b. Two-way e. According to Purpose: a. General b. Business(Specific)

UNIT IV Textbook entitled _Prism: Spoken and Written Communication,

Prose & Poetry' published by Orient Black Swan Prose i) With the Photographer – Stephen Leacock ii) Socrates and the Schoolmaster – F. L. Brayne iii) Speech on Indian Independence – Jawaharlal Nehru

Poetry i) On Television - Roald Dahl ii) The Felling of the Banayan Tree – Dilip Chitre iii) Stay Calm - Grenville Kleiser

Paper - II

Course Name - Financial Accounting

Course code -1T2

UNIT – I Accounting Concepts:- Introduction, Accounting Concepts and Conventions, Generally Accepted Accounting Principles(GAAP), Conceptual Basis of a Balance Sheet, Capital and Revenue Income and Expenditure, Indian Accounting Standards AS 1 to AS 10. Mechanics of Accounting:- Introduction, Classification of Accounts, Double Entry System, Overview of Accounting cycle, Preparing journals, Subsidiary Books, Ledger, Preparation of Trial Balance (Theory & Numerical)

UNIT – II Preparation of final Accounts of Sole Traders :- Introduction, Describe format of P & L Account, Format of Balance Sheet, Treatment of Adjustments, The components of a set of final accounts for a sole trader. Prepare Trading Account, Profit & Loss Account and Balance Sheet (Theory & Numerical)

30/03/2021

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UNIT – III Valuation of Goodwill – Meaning and need for valuation of goodwill, Feature of goodwill, Factors influencing valuation for goodwill, Average profit method (Future 37 maintainable profit method), weighted average profit method, Super profit method, Capitalization method, Annuity Method. (Theory & Numerical)

UNIT – IV Consignment Accounts: - Meaning, Needs, Advantages and formalities in consignment, difference between a consignment and a sale, Performa invoice, Account sales, Accounting procedure of consignment, valuation of consignment stock (Theory & Numerical)

Paper - III

Course Name - Fundamentals of Computer

Course Code – 1T3

UNIT – I Understanding the Computer:- Introduction, Evolution, Generation, Classification and Application of computers. Memory and Storage Systems: Introduction, Memory representation, Random Access Memory, Read Only Memory, Storage systems, Magnetic storage systems, Optical storage systems, Magneto optical system, Solid-state storage devices. 38

UNIT – II Input Devices: Introduction, Keyboard, Pointing devices, Scanning devices, Optical recognition devices, Digital camera, Voice recognition system, Data acquisition sensors, Media input devices. Output Devices: Introduction, Display monitors, Printers, Impact printers, Non-impact printers, Plotters, Voice output systems, Projectors, Terminals. Computer Codes: Introduction, Decimal system, Binary system, Hexadecimal system, Octal system, Conversion of numbers

UNIT – III Computer Software: Introduction, Types of computer software, System management programs, System development programs, standard application programs. Programming Languages: Introduction, History of programming languages, Generations of programming languages, Characteristics of good programming languages, Developing a program, Running a program. Data Communication and Networks: Introduction, Data communication using modem, Computer network, Network topologies, Network protocol and software, Application of network.

UNIT – IV Operating Systems: Introduction, History of operating systems, Functions of operating systems, Process management, Memory management, File management, Device management, Security management, Types of operating systems, Providing user interface, Popular operating systems. Microsoft Software: Introduction, MSDOS, MS Word systems, MS Excel systems, MS PowerPoint systems, MS Access systems,

Paper - IV

Course Name – Programming in 'C'

Course Code – 1T4

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UNIT – I Data Types, Operators and some statements: Identifiers and keywords, Constants, C Operators, Type Conversion. Writing a Program in C: Variable declaration, Statements, Simple C Programs, Simple Input Statements, Simple Output Statements. Control Statements: Conditional Expressions, Loop Statements, Breaking control statements.

UNIT – II Functionsand Program Structures:Introduction, Defining a Function, Types of User Defined Functions,Return Statement, Actual & Formal Arguments, Local & Global Variables, Scope of Variables, Recursive Functions.Arrays:One dimensional array, Array Declaration, Array Initialization, Two dimensional array, Declaration and initialization of two dimensional array, multidimensional array, Character array and Strings functions.

UNIT – III Pointers: Pointer Declaration, Pointer Arithmetic, Pointers and Functions, Pointers and Arrays, Pointer and Strings, Array of Pointers, Pointers to Pointers. More on Functions: Pre-processors, Macros, Header Files, standard Functions.

UNIT-IV Structures, unions and File handling:Declaration of Structure, Initializing a Structure, Array of Structure, Arrays within Structure, Pointer and Structure, 40 Union.Data File Operations: Review of input/output Functions, Opening and Closing of files, Simple File Operation, Structures and File Operation, Block Read/Write, More on File operations, Random Access File processing.

Semester – II

Paper – I

Course Name - English and Business Communication – II

Course code - 2T1

UNIT-I A. Comprehension of an Unseen Passage B. Punctuation, Words often confused

UNIT-II Business Correspondence: Inviting Quotations, Placing Orders, CreditLetters - Granting/Refusing Credit, Letter to Bank for overdraft facility

UNIT-III Elements of communication• Objectives of communication• Essentials of effective communication• Barriers to effective communication• Suggestions to overcome the barriers• 41

UNIT-IV Textbook entitled _Prism: Spoken and Written Communication,

Prose & Poetry' published by Orient Black Swan Prose I. An Astrologer's Day – R. K. Narayan II. The Gift of the Magi – O. Henry III. The Bet – Anton Chekhov

Poetry I. Say Not the Struggle Naught Availeth - Arthur Hugh Clough II. No Men are Foreign- James Kirkup III. Abou Ben Adhem - James Leigh Hunt

Paper - II

Course Name – Principles of Business Management

Course Code – 2T2

30/03/2024

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UNIT- I Nature And Functions Of Management – Importance Of Management, Definition Of Management, Management Function Or The Process Of Management, Levels Of Management, Organizational Or Business Functions, Role Of A Senior Management, Managerial Skills, Managerial Effectiveness, Management And Administration, Management- A Science Or An Art?, Management- A Profession?, Professional Management Vs Family Management, Management Of International Business. Planning- Nature Of Planning, Importance Of Planning, Types Of Plans, Steps In Planning, Strategic Planning Process, Limitation Of Planning, Making Planning Effective, Planning Skills, Strategic Planning In The Indian Industry. Decision Making- Meaning Of Decision, Types Of Decision, Steps In Relational Decision-making, Rationality In Decision-Making, Environment Of Decision-Making, Common Difficulties In Decision-Making.

UNIT- II Organization- What Is An Organization?, Process Of Organizing, Principles Of Organizing, Span Of Management, Departmentalization, Process Departmentalization, Purpose Departmentalization, Organization Structure, What Type Of Structure Is Best?, Emerging Organization Structures, Committees, Teams, International Organization Structures. Coordination – Distinction Between Coordination And Cooperation, Distinction Between Coordination And Control, Need For Coordination, Requisites For Excellent Coordination, Types Of Coordination, Techniques Of Coordination, Difficulties Of Coordination, Staffing- Importance And Need For Proper Staffing, Manpower Planning, Recruitment, Selection, Placement, Induction, Manpower Planning In India.

UNIT- III Training And Development- Difference Between Training, Education And Development, Advantages Of Training, Steps In Setting Up A Training And Development Programme, Design And Development Of The Training Programme, Evaluation Of Training And Development, Executive Training Practices In India, 43 Mentoring, Learning Organization, Knowledge Management Direction And Supervision- Requirements Of Effective Direction, Giving Orders, Motivation, Job Satisfaction, Organizational Commitment, Morale, First-Level Or Front- Line Supervision.

UNIT- IV Communication- Importance Of Communication, Purpose Of Communication, Formal Communication, Forms Of Communication, Informal Communication, The Communication Process, Barriers To Communication, Principles Of Effective Communication. Managerial Control- Steps In A Control Process, Need For Control System, Benefits Of Control, Essentials Of Effective Control System, Problems Of The Control System, Control Techniques.

Paper - III

Course Name – Programming in C++

Course Code – 2T3

UNIT – I Introduction to Object Oriented Programming: Introduction, What is Object Oriented Programming(OOP)?, Structured Procedural programming(SPP), Object 44 Oriented Programming OOP, Characteristics of OOPs, Advantages of OOPs, Disadvantages of OOPs, Comparison of SPP and OOP, Steps in Developing OOP Programs, Structure of Object Oriented Programs, Object Oriented Languages, Importance of C++. Data Types, Operators and Expressions: Identifiers & Keywords, Data Types, C++ Simple Data Types, Literals, Variables, the Const Data type, C++ Operators, Type Conversion. Input and Output Streams: Comments, Declaration of Variables, the Main () Function, Simple C++ Programs, Program Termination, Features of IOStream, Keyboard and Screen I/O, Manipulator Functions, Input and Output (I/O) Stream Flags. Control Statements: Conditional Expressions, Loop Statements, Nested Control Structures, Breaking Control Statements.

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UNIT – II Function and Program Structures: Introduction, Defining a Function, Return Statement, Types of Functions, Actual & Formal Arguments, Local & Global Variables, Default Arguments, Structure of C++ Program, Order of the Function Declaration, Manually invocated Functions, Nested Functions, Scope Rules, Side Effects, Storage Class Specifiers, Recursive Function, Pre-processors, Header Files, Standard Functions. Arrays: Introduction, Array Notation, Array Declaration, Array Initialization, Processing with Arrays, Character Array. Pointers and Strings: Introduction, Pointer Arithmetic, Pointers and Functions, Pointers and Arrays, Pointer and Strings. Structures and Unions:- Introduction, Declaration of Structure, Processing with Structures, Initialization of Structures, Functions and Structures, Array of Structure, Pointer and Structure, Unions.

UNIT – III Classes and Objects: Introduction, Structures and Classes, Declaration of Class, Member Functions, Defining the Object of a Class, Accessing a Member of Class, Array of Class Objects, Pointer and Classes. Special Member Function: Introduction, Constructors, Destructors, Inline Member Functions, Static Class Members, Friend Function,This Pointer.Single and Multiple Inheritance: Introduction, Single Inheritance, Types of Base Classes, Type of Derivation,Multiple Inheritance,Member Access Control. 45

UNIT-IV Overloading Functions and Operators: Function Overloading, Operator Overloading, Overloading of Binary Operators, Overloading of Unary Operators. Polymorphism and Virtual Functions: Polymorphism, Virtual Functions, Pure Virtual Functions, Abstract Base Classes, Virtual Base Classes. Data File Operations: Opening and Closing of Files, Reding/Writing a Character from a File, Binary File Operations.

Paper - IV

Course Name – E-Commerce and Web Designing

Course Code – 2T4

UNIT – I Introduction to Electronic Commerce- Electronic Commerce : The Scope of Electronic Commerce, Definition of Electronic Commerce, Electronic Commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce, e-Commerce in Perspective. Business Strategy in an Electronic Age: The Value Chain, Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains. Competitive Advantage: Competitive Strategy, Porter's Model, First Mover Advantage, Sustainable Competitive Advantage, Competitive advantage using e-Commerce.

UNIT – II Business to Business Electronic Commerce - Inter Organizational Transactions: Inter Organizational Transactions, the Credit Transaction Trade 46 Cycle, A Variety of Transaction, Pens and Things. Electronic Markets: Markets, Electronic Markets, Usage of Electronic Markets, Advantages and Disadvantages of Electronic Markets, Future of Electronic Markets. Electronic Data Interchange (EDI): Introduction to EDI, EDI definition, The Benefits of EDI, EDI Example. Inter Organizational e-Commerce: Inter Organizational Transaction, Purchasing Online, After Sales Online, e-Commerce in Desk top Facilities Management, Pens and Things and the Web.

UNIT – III Business to Consumer Electronic Commerce - Internet Shopping and the Trade Cycle, Other e-Commerce Technologies, Advantages and Disadvantages of Consumer e-

Commerce, Consumer e- Commerce at Pens and Things. The Elements of e-Commerce : Elements, e-Visibility, The e-Shop, Online Payments, Delivering the Goods, After Sales Service, Internet e- Commerce Security, A Web Site Evaluation Model. Introduction to HTML: Designing a Home Page, History of HTML, HTML Generations, HTML Documents, Anchor Tag, Hyper Links, Sample Html Documents. Header and Body Sections: Header Section, Title, Prologue, Links, Colorful Web Page, Comment Lines, Some Sample Html Documents. Designing the body Section: Heading Printing, Aligning the Headings, Horizontal Rule, Paragraph Tab Setting, Image and Pictures, Embedding PNG Format Images.

UNIT – IV Ordered and Unordered Lists: Lists, Unordered Lists, Headings in a List, Ordered Lists, Nested List. Table Handling: Table, Table Creation in HTML, Width of the Table and Cells, Cells Spanning Multiple Rows/Columns, Coloring Cells, Columns Specification, Some Sample Tables. Dhtml and Style Sheets: Defining Styles, Elements of Styles, Linking a Styles Sheet to an HTML Document, In-Line Styles, External Styles Sheets, Multiple Styles. Frames: Frameset Definition, Frame Definition, Nested Framesets. A web Page Design Project: Frameset Definition, Animals, Birds, Fish. Forms: Action Attribute, Method Attribute, Input type Attribute, Drop Down List, Sample Forms

Semester – III

Paper - I

Course Name – Environmental Studies

Course Code – 3T1

UNIT - I Environment, Environment Studies, Need for public Awareness, Environmental Degradation, Shelter Security, Economic Security, Social Security, Effects of Housing on Environment , Effects of Industry on Environment. Natural Resources- Introduction, Types of Natural Resource, Forest Resources, Water Resources, mineral Resources, Energy resources, Land Resources, Conservation of Natural Resources, Sustainable Lifestyles, Biogeochemical Cycle.

UNIT – II Ecosystem- Introduction to Ecology and Ecological Succession, Ecosystem, FoodChain, Ecological Pyramids, Types of Ecosystems, Forest Ecosystems, Aquatic Ecosystems, Grassland Ecosystem, and Desert Ecosystem. 48 Biodiversity and its Conservation- Biodiversity, Values or Benefits of Biodiversity, Biogeographic Zones of India. Threats to Biodiversity, Human – Wildlife Conflicts, Conservation of Biodiversity.

UNIT – III Environmental Pollution ,Introduction, Public Health Aspects, Air Pollution, Land Pollution, Soil Pollution, Marine Pollution, Water Pollution, Noise Pollution, Thermal Pollution, Solid Waste Management, Role of Individuals in Pollution Prevention, Disaster Management.

UNIT – IV Social Issues and the Environment- Introduction, Sustainable Development,Urbanization, Water Conservation, Resettlement and Rehabilitation of People ; Its Problems and Concerns, ACTs for Environmental Protection, Carbon Credits, Initiatives and Roles of Nongovernmental Organization (NGOs) in Environmental Protection, Issues Involved in Enforcement of Environmental Legislation . Environment and Human Health, Environmental Education, Role of Information Technology in Environment and Human Health.

Paper – II

Course Name – Business Economics

Course Code – 3T2

UNIT I Introduction: Economics and Business Economics– Meaning, Nature, concept & Scope of Business economics. Basic problem of an Economy and Role of price Mechanism – Basic problems of an economy, Classification of Economy, Its features, advantages and disadvantages. Free Enterprise Economy: Meaning & Features. Theory of utility : Theory of Consumer Behavior – Nature of Human wants, Utility Analysis - Meaning and definition of utility, Concepts of Marginal Utility, Total Utility, Cardinal and ordinal approach of utility(Difference), Features of Utility, Law of diminishing Marginal utility.

UNIT II Theory of Demand and supply -Theory of Demand: Concept of Demand, Law of Demand-Meaning, Definition, Assumptions & Exceptions. Elasticity of Demand - Meaning, Types and Factors affecting Elasticity of Demand. Demand Forecasting – Meaning, Definition, Importance and scope of Demand Forecasting, Methods of demand forecasting. Supply Analysis – Supply: Meaning, Determinants and functions of Supply. Law of Supply, Elasticity of Supply: Meaning of Elasticity of Supply, Types of Elasticity of Supply

Unit – III Theory of Production and cost - Theory of Production: Meaning of Production, Factors of production, Concepts of Total Product, Average product and Marginal Product, Production Function, Short Run Production Function: Law of Variable Proportion, ISO Quant Curve, Long Run Production Function, Law of Returns to Scale. Theory of Cost – Meaning of Cost, Cost Concepts, Cost Function, Concepts of total Cost ,Average Cost and Marginal Cost, Short Run Average Cost Curves, Long Run Cost Curve, Economies and Diseconomies of Scale

UNIT IV Market Structure And Pricing theory- Market Structure: - Meaning of market, Classification of Market, Concepts of Total revenue, Average revenue and Marginal revenue, Market Structure - Concept ,Features types. 50 Price – Cost and Output Determination under Different types of markets- Perfect Competition, Monopoly, Monopolistic Competition, Equilibrium of firms under different market structures in short run and long run. Price Discrimination in monopoly and oligopoly. Kinked demand curve

Paper - III

Course Name – Visual Basic Programming

Course Code – 3T3

Unit – I Introduction to Visual Basic –Advantages of Visual Basic, Features of Visual Basic. Visual Basic Window Components – Menu Bar, Standard Toolbar, Project Explorer Window, Form Layout Window, Properties Window, Toolbox, Code Editor Window, Object Browser, Working With Forms – Extension & With Function ofthe File, Properties, Events and Method ofthe Form. Using The Controls Of Visual Basic–Label Control, Commandbutton Control, Textbox Control, Option Button Control, Frame Control, Checkbox Control, Listbox Control, Combobox Control, Image Control, Scroll Control, Picture Control, sing Timer Control, Drivelistbox Control, Dirlistbox, Filelistbox Control.

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Unit – II Basic Programming Fundamentals– Scope of Variables, Operators, Decision Structure, Loop Structure, Arrays, control array. Working With Procedure, Functions Procedure, Functions, Modules Menus – Creating Menus, Creating Popup Menu. Working With Custom Controls – Imagelist Control, Imagecombo Control, Treeview Control, Listview Control, Toolbar Control, Statusbar Control.

Unit – III Creating MDI Applications – Features of Child Form, Database Handling – Creating the Database, Accessing the Database Using ADO Data Control. Working With Advance Data Controls – Datalist Control, Datacombo Control, Datagrid Controls, Setting The Properties Of The Datagrid Control, Mshflexgrid Control,

Unit – IV Debugging Techniques – Error handling : Types of errors. Debugging, tools for debugging, handling runtime errors. Working with Data Environment-Data Environment and Data Report, Data Environment designer adding connection & commands Data reportcontrols, creating & printing reports.

Paper - IV

Course Name – Database Management System
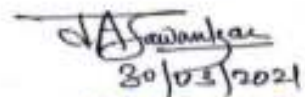
Course Code – 3T4

UNIT – I Introduction: Concept of the System, Types of Decisions, Information System, Classification of information System, Conventional File Processing System, Database System, Components of Database Management System, Economic 52 Justification of Database Approach. Database Concepts: Introduction, Data, Information, Metadata, Terminologies of Files, Association between Fields, Association between Files (Record Types), File Organization.

UNIT – II Data Models: Introduction, Classification of Data Model, Entity Relationship Model. Database Design: Introduction, Steps of Database Design, Normalization, Case Problem, Data Volume and Usage Analysis, Integrated Case Study-Database Design for Academic institution. Implementation Design: Introduction, Implementation Design,

UNIT – III Structured Query Language - I: Table fundamentals, viewing data in the tables, Eliminating duplicate rows when using a select statements, sorting data in a table, creating a table from a table, inserting data into a table from another table, delete operations, updating the contents of a table, modifying the structure of tables, renaming tables, truncating tables, destroying tables, creating synonyms.

UNIT-IV Structured Query Language - II: Data Constraints, Types of data constraints, defining different constraints on a table, computations done on table data, ORACLE functions, Date conversion functions, Data functions, Miscellaneous functions, Grouping data from tables in SQL, Subqueries, Joins, concatenating data from table columns, using the UNIONS, INTERSECT and MINUS clause.

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Semester - IV

Paper - I Course Name – Statistical Techniques

Course Code – 4T1

Unit – I Statistics and Measures of Central Tendency: – Meaning, Scope, Importance, Functions and Limitations of Statistics. Collection of data, Primary data and Secondary Data, Tabulation and Classification, Frequency distribution, Type of table, Mean, Media, Mode, Geometric Mean and Harmonic Mean (theory & Numerical)

Unit – II Measures of Dispersion: – Meaning and significance of dispersion. Method of measuring dispersion, Range, Mean Deviation, Standard Deviation, Quartile Deviation, Co-efficient of variation (Theory & Numerical)

Unit – III Skewness :- Meaning of Skewness, Type of Skewness, Factor of skewness. Absolute Measures of skewness, relative measures of skewness, Karl Pearson's coefficient of skewness, Bowley's Co-efficient of skewness (Theory and Numerical)

Unit – IV Correlation and Regression:- Concept of correlation, Types of correlation, Karl Pearson's co-efficient of correlation, Probable error, Interpretation of "r", Rank correlation method. Concept of regression, Lines of Regression, Co-efficient of Regression (theory &Numerical)

Paper - II

Course Name – Business Law
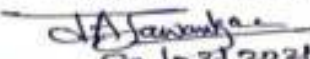
Course Code – 4T2

Unit - I THE INDIAN CONTRACT ACT, 1872: Contract – meaning, characteristics and kinds, Essentials of a valid contract - Offer and acceptance, consideration, contractual capacity, free consent, legality of objects., Void agreements, Discharge of a contract – modes of discharge, breach and remedies against breach of contract, Contingent contracts, Quasi - contracts Specific Contracts- Contract of Indemnity and Guarantee, Contract of Bailment, Contract of Agency

Unit - II THE SALE OF GOODS ACT, 1930 - Contract of sale, meaning and difference between sale and agreement to sell. Conditions and warranties, Transfer of ownership in goods including sale by a non-owner, Performance of contract of sale. Uunpaid seller – meaning, rights of an unpaid seller against the goods and the buyer.

Unit - III THE INFORMATION TECHNOLOGY ACT, 2000 :- Definitions, Digital signature, Electronic governance, Attribution, acknowledgement and dispatch of electronic records, Digital Signatures Certificates, Duties of Subscribers, Penalties and adjudication, Appellate Tribunal, Offences

UNIT - IV THE NEGOTIABLE INSTRUMENTS ACT 1881 - Meaning, Characteristics, and Types of Negotiable Instruments – Promissory Note, Bill of Exchange, Cheque, Holder and Holder in Due Course, Privileges of Holder in Due Course. Negotiation: Types of Endorsements, Crossing of Cheque, Bouncing of Cheque

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Course Name — Core Java

Course Code — 4T3

UNIT – I Java History and Introduction - Java history, Java features, How java differ from C and C++, Java and internet, Java and world wide web, Java environment. Simple Java programs, Java program structure, Java tokens, Java virtual machine, Command line arguments. Variables, Data Types and Simple I/O –Variables, Data Types, Scope of variables, Symbolic constants, Type casting, Standards default values, Getting Simple User Input. Operators in java-Introduction, Arithmetic operators, Relational operators, Logical operators, Assignment operators, Increment and decrement operators, Conditional operators, Bitwise operators, Special operators, Mathematical functions. Decision Making and Branching –If…Else statement, Nesting of If…Else statement, the switch statement, The? : Operators.

UNIT-II Decision Making and Looping — Introduction, The while statement, the do statement, for statement, Jumps in loops, Labeled loops. Arrays, Strings — One Dimensional Array, Two Dimensional Array, Strings. Classes, Objects and Methods — Introduction, Defining a class, Methods declaration, Creating objects, Accessing class members, Constructors, Method overloading, Static members, Inheritance: Extending a class, Overriding methods, Final variables and methods, Final classes, Finalizer methods, Abstract methods and classes, Visibility Controls. Interfaces:— Introduction, Defining interfaces, Implementing interfaces, Accessing interface variables.

UNIT - III Packages:— Introduction, Java API Packages, Using system packages, Naming conventions, Creating packages, Accessing a package, Using a package. Introduction to Thread - Creating threads, Life cycle of thread. Managing Errors and Exceptions — Introduction, Types of errors, Exceptions, Syntax of exceptions handling code, catch statements, using finally statements, throwing our own exceptions. Graphics Programming — Introduction, The graphics class, Lines and rectangles, Circles and ellipses, Drawing arcs, Drawing polygons.

UNIT-IV Applet Programming — Introduction, How applet differ from application, Preparing to write applet, Building applet code, Applet life cycle, Creating an executable applet, Designing a web page, Applet tag, Adding applet to HTML file, Running the applet, Passing parameters to applet, Displaying numerical values, Getting input from the user. Managing Input / Output Files in JAVA — Introduction, Concepts of streams, Streams classes, Bytes streams classes, Character streams classes, Using the file classes, Input / Output exception, Creation of files, Reading/Writing character, Reading/Writing bytes.

Paper - IV

Course Name – PHP & MySQL

Course Code – 4T4

8°/05/2021

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UNIT- I Getting Started With PHP- Basic HTML Syntax, Basic PHP Syntax, Using FTP, Testing Your Scripts, Sending Text To The Browser, Adding Comment To The Script, Basic Debugging Steps. Variables- What Are Variables?, Variable Syntax, Types Of Variables, Variable Values, Understanding, Quotation Marks. HTML Forms And PHP- Creating A Simple Forms, Choosing A Form Data In PHP, Displaying Errors, Error Reporting. Using Numbers-, Performing Arithmetic, Formatting Numbers, Understanding Precedence, Incrementing And Decrementing A Number, Creating Random Numbers.

UNIT- II Using Strings- Creating The HTML Forms, Concatenating Strings, Handling Newlines, HTML And PHP, Finding Substrings, Replacing Parts Of A String. Control Structures-The if Conditional, Validation Functions, Using Else, More Operators, Using else if, The Switch Conditional, The For Loop. Using Arrays- What Is An Array, Creating An Array, Adding Items To An Array, Accessing An Array From A Form.

UNIT- III Creating Web Applications- Creating Templates, Using Constants, Working With The Date And Time, Handling HTML Forms With PHP, Sending Email. Cookies And Sessions-What Are Cookies?, Creating Cookies, Reading From Cookies, Adding Parameters To Cookies, Deleting A Cookie, What Are Sessions?, Creating Session, 58 Accessing Session Variables, Deleting Session. Creating Functions- Creating And Using Simple Functions, Creating And Calling Functions That Take Arguments, Setting Default Arguments Values, Creating And Using Functions That Return A Value, Understanding Variable Scope.

UNIT- IV Files And Directories- File Permissions, Writing To Files, Locking To Files, Reading From Files, Introduction To Database- Introduction To SQL, Connecting To MYSQL, MYSQL Error Handling, Creating And Selecting A Database, Creating A Database, Inserting Data Into A Database, Securing Query Data, Retrieving Data From A Database, Deleting Data In A Database, Updating Data In A Database. Putting It All Together- Getting Started, Connecting To The Database, Writing The User-Defined Function, Creating The Template, Adding Quotes, Listing Quotes, Editing Quotes, Deleting Quotes.

BCCA – Part - III

Semester – V Paper - I

Course Name – Computerized Accounting using Tally

Course code - 5T1

UNIT I Introduction to Tally.ERP 9- Basics of Accounting-Types of accounts-Golden rules of accounting —Accounting principles —Features of Tally- Opening Tally.ERP 9, Components of the Tally.ERP 9 Window, Creating a Company. Accounting masters in Tally —F11: Features —F12 Configurations —Setting up of Account Heads. 59

UNIT II Groups, Ledgers, Vouchers and Orders- Introducing Groups, Introducing Ledgers, Introducing Vouchers, Introducing Purchase Orders, Introducing a Sales Order, Introducing Invoices.. Stock and Godown in Tally- Stock Groups, Stock Categories, Stock Items, Units of Measure, Godowns.

UNIT III Stock and Godown in Tally-Cost Centers and Cost Categories—Bank Reconciliation —Interest Calculations. Reports in Tally.ERP 9- Working with Balance Sheet, Working with Profit & Loss A/c Report, Working with Stock Summary Report, Understanding Ratio Analysis, Working with Trial Balance Report, Working with Day Book Report.

UNIT IV Taxation — Indian Tax Structure, Tax deducted at source in tally.ERP 9, Create a Tax Ledger, TDS Vouchers, Printing a TDS Challan, Tax collected at source in Tally.ERP 9, TCS reports in Tally.ERP 9, Calculating GST in Tally.ERP 9, GST Classification, GST Vouchers, GST Reports in Tally.ERP 9. Taking Backup in Tally.ERP 9, Restoring Data inTally. ERP 9, Text Book: 1. DT Editorial Services, Tally.ERP 9 in Simple Steps, Dreamtech

Paper - II

Course Name — VB.Net

Course code -5T2

UNIT- I Welcome to Visual Basic.NET — Windows Versus DOS Programming, Installing Visual Basic.NET, The Visual Basic.NET IDE, Creating a Simple Application, Using the Help System. The Microsoft.NET Framework — Microsoft's Reliance on Windows, Writing Software for Windows, Common Language Runtime, The Common Type System and Common Language Specification. Writing Software — Information and Data, Variables, Comments and Whitespaces, Data Types, Sorting Variables, Methods. Controlling the Flow — Making Decisions, The if Statement, Select Case, Loops.

UNIT- II Working with Data Structure — Understanding Array, Understanding Constants, Structures, Working with Collection and Lists, Advanced Array Manipulation. Building Windows Application — Responding to Events, Building a Simple Application, Creating Complex Applications, Using Multiple Forms. Displaying Dialog Boxes — The MessageBox Dialog box, The OpenDialog Control, The SaveDialog Control, The FontDialog Control, The ColorDialog Control, The PrintDialog Control.

UNIT- III Creating Menu — Understanding Menu Features, Creating Menu, Context Menu. Debugging and Error Handling — Major Error Types, Debugging, Error Handling. Building Objects — Understanding Objects, Reusability, Our First Object, Constructor, Inheritance, The Framework Classes.

UNIT- IV Accessing Database — What is Database, SQL Select Statement, Queries in Access, Data Access Components, Data Binding. Database Programming with SQL Server and ADO.NET —ADO.NET, The ADO.NET Classes in Action, Data Binding. Deploying Your Application — What is Deployment?, Creating a Visual Studio .NET Setup Application, Assemblies as Installers, The Core of Deployment, Deploying Different Solution.

SEC – I – Skill Enhancement Course

Elective - II

Paper - III

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Course Name – System Analysis & Design

Course code – 5T3

UNIT- I System Concept And The Information Systems Environment- Introduction, The Systems Concept, Characteristics Of A System, Elements Of A System, Types Of A System. The System Development Life Cycle - Introduction, System Development Life Cycle, Considerations for the Candidate System, Prototyping. The Role Of System Analyst- Introduction, Definition, Historical Perspective, The Multifaceted Role Of The Analyst, The Place Of The Analyst In The MIS Organization, Rising Positions In System Development, Conclusions.

UNIT- II System Analysis- System Planning And The Initial Investigation- Introduction, Bases For Planning In System Analysis, Initial Investigation. Information Gathering- Introduction, What Kinds Of Information Do We Need?, Where Does Information Originate?, Information Gathering Tools. The Tools Of Structured Analysis- Introduction, What Is Structured Analysis?, The Tools Of Structured Analysis. Feasibility Study- Introduction, System Performance Definition, Feasibility Study.

UNIT- III System Design- The Process And Stages Of System Design- Introduction, The Process Of Design, Design Methodologies, Major Development Activities, Audit Consideration. Input/output And Forms Design- Introduction, Input Design, Output Design, Forms Design. File Organization And Data Base Design- Introduction, File Structure, File Organization, Data Base Design, The Role Of The Data Base Administrator.

UNIT- IV System Implementation- System Testing And Quality Assurance- Introduction, Why System Testing?, What Do We Test For?, The Test Plan, Quality Assurance, 64 Trends In Testing, Role Of Data Processing Auditor. Implementation And Software Maintenance- Introduction, Conversion, Combating Resistance To Change, Postimplementation Review, Software Maintenance. Hardware/ Software Selection - Introduction, The Computer Industry, The Software Industry, A Procedure For Hardware/ Software Selection, Financial Considerations In Selection, The Used Computer, The Computer Contract.

DSE – I – Discipline Specific Elective (DSE)

Course Elective - I

Paper - IV

Course Name – Cost and Management Accounting

Course code -5T4

Unit-I :- Cost Accounting Meaning, Scope, Objective, Importance, Features of cost accounting, Function of Cost Accounting, Advantage, Element of cost, Cost-Absorption, Allocation of overheads and Methods of costing, Type of Costing, Difference between cost Accounting and Financial Accounting. Problems on Cost Sheet, Tender and Quotations. (Theory and Numerical)

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Unit-II :- Process Cost Accounting Definition, Features of Process costing, Advantages of Process costing, Limitations of process costing, Wastage and By-products, Normal Loss, Abnormal Loss/Gain, Joint Products, Difference between Process cost and Job cost. Problems on Process costing

Unit-III :- Management Accounting Meaning, Definitions, Characteristics and Nature of Management Accounting, Objective, Importance, Functions of Management Accounting, Advantage and Limitations of Management Accounting, Difference between management Accounting and Cost Accounting, Difference between Financial Accounting and Management Account. BreakEven Point Analysis (Theory and Numerical)

Unit-IV :- Ratio Analysis Meaning, Importance, Limitations of Ratio Analysis, Use and Significance of Ratio Analysis, Classification of Ratio, Computation of Profitability Ratio, Financial Ratio with special reference to Current Ratio, Liquid Ratio, Inventory turnover Ratio, Debtors and Creditors turnover Ratio, Fixed Assets turnover Ratio, Debt-Equity Ratio, Working Capital Ratio, earnings per share Ratio, Gross Profit Ratio, Net Profit Ratio, expenses Ratio, Operating Ratio. (Theory and Numerical)

Semester – VI

Paper - I Course Name – C#.Net

Course code - 6T1

UNIT – I Introducing C# - What is C#?, Evaluation of C#, Characteristics of C#, Application of C#, How does C# Differ from C++?, How does C# Differ from Java?. Understanding.NET: The C# Environment –The .NET Framework, The Common Langue Runtime, Framework Base Class, .NET Languages, Benefits of the .NET Approach, C# and .NET. Overview of C# - Introduction, A Simple C# Program, Namespaces, Adding Comments, Using Aliases for Namespaces Classes, Passing String Objects to WriteLine Method, Command Line Argument, Main with Class, Providing Interactive Input, Multiple Main Methods, Compile Time Error. Literals, Variables and Data Types –Introduction, Literals, Variables, Data Types, Value Types, Reference Type, Declaration Types, Initialization of Variables, Default Value, Constant Variable, Scope of Variables, Boxing and Unboxing. Operators and Expressions – Introduction, Operator Precedence and Associativity, Type Conversion,

UNIT - II Decision Making and Branching –Introduction, Decision Making with if Statement, Simple if Statement, The if...else Statement, The else if Ladder, The Switch Statement, The ? : Operator, Decision Making and Looping – Introduction, The while 67 Statement, The do Statement, for Statement, The for each Statement. Methods in C# - Introduction, Declaring Methods, The Main Method, Invoking Methods, Nesting of Methods, Method Parameters, Pass by Value, Pass by Reference, The Output Parameters, Variables Argument List, Methods Overloading. Handling Arrays – Introduction, One-Dimensional Array, Creating an Array, Two-Dimensional Array, Variable-Size Arrays,. Manipulating Strings – Introduction,

Creating String, String Methods, Inserting String, Comparing String, Finding String, Mutable String Arrays of String.

UNIT - III Structures and Enumerations —Introduction, Structures, Structs with Methods, Difference between Classes and Structs, Enumerations, Enumerator type Conversion. Classes and Objects – Introduction, Basic Principle of OOP, Defining a Class, Adding Variables, Adding Methods, Member Access Modifiers, Creating Objects, Accessing Class Members, Constructors, Overloaded Constructors, Static Members, Static Constructors, Private Constructors, Copy Constructors, Destructors, Member Initialization, The This Reference, Nesting of Members, Constant Members, Read-only Members, Properties, Indexers. Inheritance and Polymorphism — Introduction, Classical Inheritance, Defining a Subclass, Visibility Control, Defining Subclass Constructors, Multilevel Inheritance, Hierarchical Inheritance, Overriding Methods, Abstract method, Sealed Class: Preventing Inheritance, Sealed Methods, Polymorphism.

UNIT - IV Interface: Multiple Inheritance—Introduction, Defining an Interface, Extending Interface, Implementing Interface, Interface and Inheritance, Explicit Interface Implementation, Abstract Class and Interface. Operator Overloading — Introduction, Overloadable Operators, Need for Operator Overloading, Defining Operator Overloading, Overloading Unary Operator, Overloading Binary Operator, Overloading Comparison Operator. Managing Errors and Exceptions — Introduction, What is Debugging?, Types of Errors, Exceptions, Syntax of Exception Handling Code, Multiple Catch Statements, The Exception Hierarchy, General Catch Handler, Using Finally Statement, Nested Try Blocks, Throwing Our Own Exceptions, Checked and Unchecked Operators, Using Exceptions for Debugging

SEC – I – Skill Enhancement Course

Elective - I

Paper - II Course Name – Python

Course code - 6T2

UNIT - I Getting Started -Introducing python, Installing python on windows, Installing python on Linux, Meeting the interpreter, Writing your first program, Employing variables, Obtaining user input, Correcting Errors. Performing operations-Doing arithmetic, Assigning values, Comparing Values, Assessing logic. , Examining Conditions, Setting precedence, casting data types, Manipulating bits. Making statements - Writing lists, Manipulating lists, Restricting lists, associating list elements, Branching with if, Looping while true, Looping over items, Breaking out of loops.

UNIT - II Defining Functions-Understanding scopes, Supplying arguments, Returning Values, Using callbacks, Adding placeholders, producing generators, Handling exceptions, Debugging assertions. Importing Modules - ,Storing functions, Owning function names, Interrogating the system, Performing mathematics, Calculating decimals, Telling the time, Running a timer, Matching patterns.

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UNIT - III Managing strings -Manipulating strings, Formatting strings, Modifying strings, Accessing files, Reading and writing files, Updating file strings, Pickling data Programming objects, Encapsulating data, Creating instance objects, Addressing 69 class attributes, Examining built-in attributes, Collecting garbage, Inheriting features, Overriding base methods, Harnessing polymorphism.

UNIT - IV Processing requests-Sending responses, Handling values, Submitting forms, Providing text areas, Checking boxes, Choosing radio buttons, Selecting options, Uploading files Building interfaces-Launching a window, Responding to buttons, Displaying messages, Gathering entries, Listing options, Polling radio buttons, Checking boxes, Adding images Developing applications- Generating random numbers, Planning the problem, Designing the interface, Assigning static properties, Initializing dynamic properties, Adding runtime functionality, Testing the program, Freezing the program, Deploying the application.

DSE – I – Discipline Specific Elective (DSE) Course

Elective – I Paper – III

Course Name – Entrepreneurship Development

Course code - 6T3

UNIT – I Entrepreneur: Introduction, Evolution of the concept of Entrepreneur, Characteristics of successful Entrepreneurs, The charms of becoming Entrepreneur, The Entrepreneurial decision process, Functions of Entrepreneur, Need of Entrepreneur, Types of Entrepreneurs, Distinction between an Entrepreneur and a Manager, Intrapreneur, social Entrepreneur. Entrepreneurship: Concept of Entrepreneurship, Growth of Entrepreneurship in India, Role of Entrepreneurship in economic development. Types of Entrepreneurship, Family Business

UNIT - II Agri-Preneurship: Introduction, Need for developing Agri-Preneurship in India, Opportunities for developing Agri-Preneurship, Challenges involved in developing Agri-Preneurship. Factors affecting Entrepreneurship growth: Factors affecting Entrepreneurship, Government Actions. Entrepreneurial Motivation: Meaning of Entrepreneurial Motivation, Motivational Cycle or Process, and Theories of Entrepreneurial Motivation. Entrepreneurial Competencies: Meaning of Entrepreneurial Competency, Major Entrepreneurial Competencies, Developing Entrepreneurial Competencies.

UNIT - III Entrepreneurship Development Programmes (EDPs): Meaning of EDP, Need of EDPs, Objectives of EDPs, Entrepreneurship Development Programmes in India: A Historical Perspective, Course contents and curriculum of EDPs, Phase of EDP, Evaluation of EDPs, and Problems of EDPs. Micro and small enterprises: Small enterprise: Meaning & Definition, Essentials, features & Characteristics, Relationship between Micro and Macro enterprises, Rationale behind Micro & small enterprises, Role of Micro enterprise in economic development, Package for promotion of Micro and Small-scale enterprise. Formulation of Business Plans: Meaning of business 72 plan, Contents of business plan, Significance, Formulation of business plan, Network Analysis, Common Errors in business plan formulation.

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UNIT - IV Project Appraisal: Concept of Project Appraisal, Methods of Project Appraisal, and Environmental clearance of SMEs. Financing of Enterprise: Meaning and need for financial planning, Source of Finance, Capital Structure, Capitalization, Term Loans, Sources of short-term Finance, Venture Capital, Export Finance. Forms of business Ownership: Sole Proprietorship, Partnership, Company, Cooperative, And Selection of an appropriate form of ownership structure, Institutional Finance of entrepreneurs: Need for institutional finance, Institutional Finance. Institutional Support to Entrepreneurs: Need for institutional support, Institutional Support to small Entrepreneurs.

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