

Gondwana University, Gadchiroli



Choice Based Credit System (CBCS) Syllabus Of

**B.Com. Computer Application
(B.Com. (C/A)) Sem-V & VI
(Three Years Graduate Course)**

**Prepared by
I.T. And Application Board
2019-2020**

BCCA III (Semester V)

Subject	Paper Code	Paper Name	Total Period# /Week	Credit	% of Assessment			
					IA	UE	Total	Min. Passing (40%)
Discipline specific Course(DSEC)-I	UBCCAT501	Information Technology Law	4	4	20	80	100	40
Discipline specific Elective Course(DSEC)-II	UBCCAT502	Auditing	4	2	10	40	50	40
	UBCCAT503.1 UBCCAT503.2	(select any one) • Advance Visual Basic • Core java	4	2	10	40	50	
Discipline specific Elective Course(DSEC)-III	UBCCAT504.1 UBCCAT504.2	(select any one) • E-Commerce And XML • System analysis and Design	4	4	20	80	100	40
Discipline specific Elective Course(DSEC)-IV	UBCCAT505.1	(select any two) • Database Programming with Oracle	4	2	10	40	50	40
	UBCCAT505.2 UBCCAT505.3	• Soft skills • Computer Forensic Science	4	2	10	40	50	
Skill Enhancement Course-III	UBCCAT506.1 UBCCAT506.2 UBCCAT506.3 UBCCAT506.4	(select any one) • Personality Development • Computers for Manager • Advertisement Management • Accounting and Office Management.	1	2	[Grade]	-	-	-
Discipline specific Elective Course Practical (DSEC)-V	UBCCAP507	Lab on DSEC-II	4 Prac. Per Batch	2	20	30	50	20
Discipline specific Elective Course Practical (DSEC)-VI	UBCCAP508	Lab on DSEC-III & DESC-IV	4 Prac. Per Batch	2	20	30	50	20
Ability Enhancement Compulsory course (AECC)-V	UBCCAS509	Seminar	2	2	50	-	50	20
Total				24	170	380	550	220

Note:-1) In a Group, if any student remains absent in one of the paper then candidate result will be considered as fail in that group even though he/she has scored minimum passing marks in other paper of that group. Candidate need to appear in both the papers of that group.
2) In Practical student must appear External Practical Exam conducted by University in order to clear practical exam

BCCA - III (SEMESTER – V)
Paper–I: Information Technology Law
UBCCAT501

[Max. Marks:80]

Unit- I : Power of Arrest Without Warrant under the IT Act, 2000

- Crimes of this Millennium
- Section 80 of the IT Act 2000 - A Weapon or a Farce ?
- Forgetting the Line Between Cognizable and Non – Cognizable offences
- Necessity of Arrest without Warrant from any place, Public or Otherwise
- Checks and Balances Against Arbitrary Arrests
- Arrest for “About to Commit an Offence under the IT Act : A Tribute to Draco

Cyber Crime and Criminal Justice : Penalties, Adjudication and Appeals under the IT Act, 2000

- Concept of Cyber Crime and the IT Act 2000
- Hacking
- Teenage Web Vandals
- Cyber Fraud and Cyber Cheating Virus on the Internet
- Defamation, Harassment and E-mail Abuse
- Cyber Pornography
- Other IT Act Offences
- Monetary penalties, Adjudication and Appeals Under IT Act, 2000

Unit- II : Contracts in the InfoTech World

- Contracts in the InfoTech World
- Click – Wrap and Shrink - Wrap contracts : Status under the Indian Contract Act, 1872
- Contract formation on the Internet

Jurisdiction in the Cyber World

- Questioning the Jurisdiction and Validity of the present Law of Jurisdiction
- Civil Law of Jurisdiction in India
- Cause of Action
- Jurisdiction and the Information Technology Act 2000
- Place of Cause of Action in Contractual and IPR Disputes
- Exclusion of Clauses in Contracts
- Abuse of Exclusion Clauses
- Objection of Lack of Jurisdiction
- Misuse of the Law of Jurisdiction

Unit III : Battling Cyber Squatters and Copyright

Protection in the Cyber World-

- Concept of Domain Name and Reply to Cyber Squatters
- Meta - Tagging
- Legislative and Other Innovative Moves Against Cyber Squatting
- The Battle Between Freedom and Control on the Internet
- Works in Which Copyright Subsists and Meaning of Copyright
- Copyright ownership and Assignment
- License of Copyright.

E- Commerce Taxation: Real Problems in the Virtual World

- A tug of War on the Concept of Permanent Establishment
- Finding the PE in Cross Border E – Commerce
- The United Nations Model Tax Treaty

Unit IV : The Indian Evidence Act of 1872 V/S Information Technology Act 2000 -

- Status of Electronic Records as Evidence
- Proof and Management of Electronic Records ,Relevancy Admissibility and Probative Value of E- Evidence
- Proving Digital Signatures
- Proof of Electronic Agreements
- Proving Electronic Messages
- Other Amendments in the Indian Evidence Act. by the IT Act.

Protection of Cyber Consumer in India

- Are Cyber consumers covered under the Consumer Protection Act?
- Goods and Services
- Consumer Complaint
- Defect in Goods and Deficiency in Services
- Restrictive and Unfair Trade Practices
- Instances of Unfair Trade Practices
- Reliefs Under CPA
- Beware Consumers
- Consumer Forum, Jurisdiction and Publications on Cyber Consumers in India

Reference Books:-

1. Company Law – Pandey Vivekanand - Himalaya Publication, Mumbai
2. Labour Law – Saiyed I.A. - Himalaya Publication, Mumbai
3. Elements of Corporate Law - Maheshwari S.N. - Himalaya Publication, Mumbai
4. Cyber laws and IT Protection – Chander, Harish PHI learning Pvt. Ltd. New Delhi
5. Cyber laws simplified – Sood vivek – McGraw Hill Ed (India) Pvt. Ltd. New Delhi

BCCA - III (SEMESTER – V)

Paper–II: Auditing

UBCCAT502

[Max. Marks:40]

Unit- I : **1) Auditing :**

Meaning, Objects and Importance Origin and Growth of Auditing – Growth of Auditing in India – Meaning of Auditing – Definition – Salient Features – Scope of Audit – Difference between book keeping, Accountancy, Auditing and Investigation – **Objects of Audit** – Primary Objects, Secondary Objects – Necessity of Auditing – **Detection and Prevention of Fraud** – Kinds of Fraud – Detection of Fraud – Detection of Errors – Kinds of Errors – How to Prevent Errors and Fraud. Need and Importance of Auditing – Advantages of Auditing to the Business and Owners – Limitation of Audit.

2) Classification of Audit :

Kinds of Audit - Statutory Audit – i) Company Audit, ii) Audit of Trusts, iii) Audit of other Institutions – **Private Audit** a) Audit of Accounts of sale proprietary concern, b) Audit of Accounts of Partnership Firm, c) Audit of Accounts of Private Individuals and Institutions – Govt. Audit : Objectives of Govt. Audit and Commercial Audit – Internal Audit - Kinds of Audit from Practical Viewpoint – **Continuous Audit** – Advantages and Disadvantages of Continuous Audit – Remedies to make continuous Audit more Effective – Annual or Pefiodical Audit – Advantages and Disadvantages of Annual Audit.

Unit- II : **3) Audit Planning :**

Determining the Scope of Audit – Audit engage meant letter – Clients Preparation for the Auditors – Audit Memorandum – Audit Program – a) Contents of an Audit Program, b) Essentials of an Audit Program, c) Advantages of Audit Program, d) Disadvantages of Audit Program, e) Remedies to Remove the Drawbacks of Audit Program – Audit Note Book – i) Contents of Audit Note Book, ii) Advantages of Audit Note Book – Working Papers – Importance of Working Papers – Principles of Preparation of working of papers - Control of Working paper – Ownership of Working Papers – Filing of Working Papers – Filing of Working Papers – Procedure of Audit.

4) Vouching :

Introduction – Meaning of Vouching – Definition – Characteristics and Importance of Vouching – Types of Vouchers – Examples of Vouchers – Objects of Vouching – Difference Between Routine Checking and Vouching - Point to be noted while Examing the Voucher i) General Points ii) Specific Point in Vouching of Different Book of Accounts.

Unit- III : 5) International Check and Internal Control :

Internal Check - Objects of Internal Check – Auditor’s Duty in Respect of Internal Check - General Consideration in Framing a System of Internal Check – Test Check – Difference Between Internal Check and Test Check – **Internal Control** – Objectives of Internal Control – Internal Control and Auditors – Limitation of Internal Control - Evolution of Internal Control – Procedure of Evolution of Internal Control – Consideration In Evolution – Internal Control Questionnaire – Merits and Demerits of Internal Control Questionnaire – **Internal Audit** – Objective of Internal Audit Vis A vis Independent Audit – Different Between Internal Auditor and Independent Auditor.

Unit- IV : 7) Capital and Revenue Items :

Importance of Allocation - Capital Expenditure – Revenue Expenditure – Auditor’s Duty As Regards Capital and Revenue Items – Deferred Revenue Expenditure - Auditor’s Duty as Regarded Revenue Expenditure.

8) Audit of Bank, Insurance Companies, Co-Operative Societies and Educational Institutions:

Banking Companies – Legislation - Restriction – Approach To Bank Audit - Audit Program - Capital and liabilities – Assets – Audit of Nationalized Banks – **Insurance Companies** - Financial Statement – Audit – Registers of Policies and Elemis and other Records - Submission of Returns – Investments – Limits of Deposits with one Banking Company – Form of Contents of Balance Sheet – Liabilities - Asset side – Other Accounts - Special Aspects of Audit - Compliance with Law – Audit of the Head Office. **Audit of Co-Operation Societies – Audit of Educational Institutions.**

List of Recommended Books :

- 1) L. N. Chopde, D.H. Choudhari, Dr. Baban Taywade, Auditing – Sheth Publishers Private Limited, Mumbai.
- 2) Dr. K. R. Dixit, Auditing – Vishwa Publishers & Distributors, Nagpur
- 3) B. N. Tandon, S. Sudharsanam, S. Sundharabahu Practical Auditing – S. Chand & Company Ltd.
- 4) S. K. Mehta, Auditing , Diamond Publication Pune.

BCCA - III (SEMESTER – V)
Paper–III (Elective-I): Advance Visual Basic
UBCCAT503.1

[Max. Marks: 40]

UNIT I: ActiveX Data Objects Controls

ADO Control: ADO Object model, Establishing connection, open database connectivity, cursor Types and locking, ADO Object Methods(Add, New, Update, Delete)

UNIT II: ActiveX Data Objects

Data Controls: properties and Methods : data Bound controls: list, combo and grid. Use of ADO Object, ADO Architecture, Connecting ADODC to Bound Control, ADO Object Methods for Editing, Updating and Searching

UNIT III: Reports And Data Environment

Active-x, Reports and Project building –Active-X Controls- Creation, Registering, using Reports: Designing with data Environment, command Hierarchies, data report.

UNIT IV: Error Handling

Debugging: Finding Syntax errors, finding logical errors by executing with trace , watch and breaking points.

Runtime Error Handling: Trapping,handling and redirecting the program flow. Use of err, object and properties like error number, error description.

Books:

- 1) Evangelos Petroustos ,”Mastering Visual Basic 6 “, BPB, 2005 ISBN-81-7635-269-1.
- 2) MoelJerke,”Complete Reference Visual Basic 6”,TMH, 2004, ISBN -0-07-463666-9.
- 3) Steve Brown,”Visual Basic 6.0 Complete”, Complete Idiot’s Books, ISBN 978-0789718129

References:

- 1) Peter Norton’s ,”Visual Basic 6.0” ,SAMS tec-Media,2006,ISBN-81-7635-150-4
- 2) Dr. S. B. Kishor, “Front End Development Visual Basic”, Das Ganu, ISBN : 978-93-81660-06-5
- 3) Michael Halvorson, “ Learn Visual Basic 6.0 Now”,PHI, ISBN 0-7356-0729-X
- 4) Michael Vine ,”Visual Basic Programming – For Absolute Beginner”, PHI, ISBN: 0761535535
- 5) Paul Sheriff ,”Teaches Visual Basic 6”,PHI,ISBN-978-8120315624

BCCA - III (SEMESTER – V)
Paper–III (Elective-II): Core Java
UBCCAT503.2

[Max. Marks: 40]

UNIT – I: Introduction to Java

History of Java, Features of Java, JDK Environment, Java Virtual Machine, Garbage Collection

Programming Concepts of Basic Java: Identifiers and Keywords, Data Types in Java, Expressions in Java, Control structures, decision making statements, Arrays

UNIT – II: Objects and Classes

Object Fundamentals and Classes, Pass by value, ‘this’ reference, Overloading, Overriding, Constructors, Finalization, Inheritance and types.

Language Features: Scope rules, Static data, Static methods, Static blocks, Modifiers of Class, Method, Data Members and Variable, Abstract Classes, Interfaces, Packages, Importing Packages and Classes, User define packages.

UNIT – III: Exception Handling & Multithreading

Types of Exceptions try, catch, finally, throw, throws, creating your own exception.

Multithreading: Multithreading Concept, Thread Life Cycle, Creating multithreading Application, Thread Priorities, Thread synchronization.

UNIT – IV: Abstract Window Toolkit & Streams and File I/O

Abstract Window Toolkit: Components and Graphics, Containers, Frames and Panels, Layout Managers-Border Layout, Flow Layout, Grid Layout, Card Layout, AWT all Components, Event Delegation Model, Event Source and Handlers, Event Categories, Listeners, Adapters-Anonymous Classes, Applets-Applet Life Cycle.

Books:

- 1) Cay S Horstmann Gary Cornell, “Core JAVA 2 Vol -1, 2”, The Sun Micro Systems Press, New Delhi, *ISBN-13: 978-0470105559*
- 2) Peter Van der Liden, “Just Java”, The Sun Micro Systems Press, New Delhi, *ISBN, 0130897930*
- 3) E. Balaguruswamy, “Programming with Java - A Primer”, The Sun Micro Systems Press, New Delhi, *ISBN 81-265-0931-7*

References:

- 1) Deitel and Deitel, “Java How to Program”, Prentice Hall Upper Saddle River, New Jersey 07458 (US). *ISBN 0-13-034151-7*
- 2) Jerry R Jackson Alan L, “Java by Example 1.2”, McClellan Publication

BCCA -III (SEMESTER – V)
Paper–IV (Elective I): E-Commerce and XML
UBCCAT504.1

[Max. Marks: 80]

UNIT-I: E-COMMERCE AND INTRODUCTION TO INTERNET

Introduction to E-commerce: Definition, Advantages and Disadvantages, Difference Between Traditional E-commerce and E-commerce, E-commerce Services, Online Payment Services, Portals, Features of Portals, Business opportunities in E-Commerce, Business use of Internet, Three pillars of Electronic Commerce, Internet Architecture, E-commerce and its Trade cycle, Characteristics of Reliable Information System, Major Segments of E-commerce.

Introduction to Internet: Internet, Basic Internet Terms, Evolution of Internet, Internet Addressing, Protocols, Internet Protocols, Services of Internet, Search Engine.

UNIT-II: ELECTRONIC DATA INTERCHANGE [EDI]

Introduction to EDI: Features of EDI, Advantages and Disadvantages, Benefits of EDI, EDI Trade Cycle, Value Added Service, E-commerce Technology Choices.

Introduction to Electronic Market: Three models of Electronic Market, Advantages and Disadvantages of E-market, Usage of E-market, Benefits of E-marketing, Categories of E-commerce, Electronic Market place Technology, Traditional marketing Strategy, Markets Category, Future of Electronic market, Internet Commerce, Internet Commerce and Trade Cycle.

UNIT-III: INTERNET SECURITY

Introduction, Secure Transaction, Privacy Issue, Computer Crime, Types of Computer Crime.

Introduction to Security Issue: Damage to Data and loss of Data, Unauthorized Use of Data, Environmental Threats, Human Threats.

Introduction to Security Procedure: Firewall, Cryptography, Password, Access Control List, Digital Certificate.

UNIT-IV: CSS and XML

CSS: Defining style sheets features, adding style to document, Unlink to a single sheet. Embedding style sheet, Using inline style and its properties,

XML: Introduction. XML and SGML, Design goals of XML, Application of XML; XML Software, XML tags, Structure of XML documents, Element markup, Attribute markup, **Namespaces:** Qualified name and unqualified names, Namespace scope, default name space, working with formatting

Working with DTD: Introduction, HTML and DTD, Benefits of the DTD, Structure of DTD, and Declarations of variable in DTD Element name, Occurrence indicators, Connectors.

Books:

- 1) Greenstein and Feinman, "Electronic Commerce", TMH, 2000, TMH, ISBN-0-07-042141-2,.
- 2) C.Xavier, "Web Technology and Design", TMH, ISBN-978-81-224-1450-9

References:

- 1) CompleteHTML , BPB, 2010, ISBN-978-0-07-070194-6.
- 2) BhushanDewan, "E-Commerce by ", S.Chand, ISBN -81-219-2083-3

BCCA -III (SEMESTER – V)
Paper–IV (Elective II) : SYSTEM ANALYSIS & DESIGN
UBCCAT504.2

[Max. Marks:80]

UNIT I: System Concept

System Concept: Element of the System, Types of System. **The System Development Life Cycle** Introduction, Consideration for Candidate Systems, Prototyping. **The Role of the System Analyst** Introduction, Multi-Faceted Role of the Analyst, the Analyst/User Interface, Rising Position in System Development.

UNIT II: System Planning and the Initial Investigation

Introduction: Base for Planning in System Analysis, Initial Investigation.

Information Gathering: Introduction, Information Gathering Tools. **The Tools of Structured Analysis** Introduction, the Tools of Structured Analysis, Pros & Cons of Each Tool. **Feasibility Study** Introduction, System Performance Definition, Feasibility Study.

UNIT III : Cost Benefit Analysis

Introduction: Data Analysis, Cost Benefit Analysis, Procedure for Cost Benefit Determination. **System Design-** Introduction, the Process of Design, Design Methodology, Major Development Activities, Audit Considerations. **Input/output and Form Design** – Introduction, Input Design, Output Design, Form Design.

UNIT IV: File Organization

Introduction: File Structure, and File Organization. **System Implementation (System Testing & Quality Assurance)** -Introduction, the Test Plan, Quality Assurance, Levels of Quality Assurance, Role of Data Processing Auditor. **Software Documentation-** Requirement Documentation, Architecture/Design Documentation, Technical Documentation, User Documentation, Marketing Documentation, Documentation Standard, Online Documentation

Books:

- 1) Edward, “System Analysis & Design”, Tata McGraw Hill, ISBN:8120317270
- 2) Elias Award, “System Analysis & Design”, Golgotha Publication, 2nd Ed, ISBN: 81751568- X
- 3) Raja Raman, “Analysis and Design of Information System”, PHI Publication, ISBN - 8120312270

References:

- 1) Kendall & Kendall, “System Analysis & Design”, PHI Publication, 5th Ed, ISBN- 8120321553

BCCA - III (SEMESTER – V)
Paper–V (Elective-I) : Database Programming With Oracle
UBCCAT505.1

[Max. Marks: 40]

UNIT – I: Introduction

RDBMS Concept, Introduction to Oracle, SQL Tools, Oracle as Multi-User System, SQL, SQL *Plus, Getting Started with SQL, Writing SQL Commands, Components of SQL, Data Types, Database Users, Database Objects, Elements of SQL

UNIT – II: SQL Languages

Data Definition Language : Creation of Table, Viewing table Structure, Data Integrity through Constraints, Altering Table, Dropping Table, Truncating Table

Data Retrieval: Select Command, SQL Operators, Text Search, Group Queries, Order By Clause

DML Operation: Insert, Update and Delete

Transaction Control Language: Commit, Rollback, Save Point

Data Control Language: Grant, Revoke

UNIT - III: SQL Function and Database Objects

SQL Functions: Character Function, Case Manipulation, Numeric Functions, Date Function, Conversion Function, Conditional Functions, Nested Functions, Group Functions Database Objects: Views, Sequence, Synonym, Join, Set Operator and Subquery

UNIT - IV: PL/SQL

Basic Elements of Programming, Select..Into Statement, Exception Handling: Predefined Exception, When Other Exception, Cursor: Explicit Cursor, Explicit Cursor Attributes, Subprogram and Packages, Trigger

Books :

- 1) Oracle (SQL/& PL/SQL Programming”, S.B. Kishor, Das Ganu,ISBN : 978-81-921757-5-1
- 2) Ivan Bayross,“ Oracle Developer 2000”, BPB, 2006, ISBN : 8/7029-899-7

References :

- 1) Paul Hipsley, “Developing Client / Server Applications with oracle Developer/2000 TM”, Techmedia, 1997, ISBN – 81-87150-02-X
- 2) Ivan Bayross,“ Commercial Application Development using Oracle Developer 2000 Forms 6i”, BPB, 2003, ISBN : 81-7656-742-6

BCCA - III (SEMESTER – V)
Paper–V (Elective-II): Soft Skills
UBCCAT505.2

[Max. Marks: 40]

Unit I- Self Analysis

- SWOC Analysis: Strengths, Weaknesses, Opportunities, Challenges, Master Plans. Who am I?
- Enthusiasm: How to be a Positive Person, Enthusiasm, Difference between Enthusiasm and Effort, Conducive Conditions for Enthusiasm.
- Etiquette: Meaning, Good Manners, Speaking Politely, Greeting People, Introduction with Grace, Grooming Appropriately.

Unit II- Attitude

- Personal Planning and Successes Attitude:
Personal planning, Evaluating Success, Setting Goals, Negative Thoughts, Positive Thoughts, Success Attitude, Optimism over Pessimism, Optimism over Cynicism, Interruptions into Opportunities, TIENS Pak 8 Positive Attitude for Success and Positive Boss Attitude.

Unit III- Time Management

- Value of Time, Diagnosing Time Management, Reasons Why Time Management is Important, Weekly Planner to Do List, Prioritizing Work, Extempore

Unit IV- Leadership

- Team Dynamics : Teamwork, Keys to Successful Teamwork, Benefits of Teamwork, Attitude(Psychology), Definition, Explicit, Implicit, Function, Conflict- Definition, Conflict Resolution.
- Public Speaking : Importance of Listening and Responding, 5 steps to Better Listening- Receiving, Understanding, Remembering, Evaluating, Responding

Books for Reference:

- *Soft Skills Development* by Prashant A. Dhanwalkar (Manusmare), Sai Jyoti Publication.
- *Business Correspondence and Report Writing* by R C Sharma and Krishna Mohan, Tata Mcgraw Hill.
- *Professional Communication Skills* by Pravin Bhatia, S. Chand.
- *Developing Communication Skills* by Pravin Bhatia and Meera Banerjee.
- *The Communicator* by Board of Editors, Orient Black Swan Publication.

BCCA - III (SEMESTER – V)
Paper–V (Elective-III): Computer Forensic Science
UBCCAT505.3

[Max. Marks: 40]

UNIT I: Internet Crime

Internet Crime: Definition, Types of Internet Crime, Hacking and Cracking, Cyber Terrorism, Child Pornography, Stalking, Cyber Theft, Cyber Fraud, Phishing, Password Cracking, Evidence Collection, Email Tracing, Internet Fraud.

UNIT II: Security

Authentication: Requirements, Authentication Function, Message Authentication Codes, Hash Functions, Security of Hash Functions, Secure Hash Algorithm, Digital Signatures, Authentication Protocols , Digital Signature Standard, Electronic Signature, Biometric, Intrusion Detection Password Management, Viruses and Related Threat, Virus Counter Measure, Firewall Design Principles, Trusted Systems.

UNIT III: Cryptography

Cryptography: Encryption, Decryption, Encryption Techniques, Cipher Principles, Data Encryption Standard, Block Cipher Design, Principles and Modes of Operation, Public Key, Private Key, Domain Name, Steganography, Network Security.

UNIT IV: Cyber Law

Cyber Law: Introduction, Definition of Cyber Law, Legal Identity, IT ACT: History of Information Technology Act 2000; IT Act and E-Mail, Copyright, Patent, Trade Marks.

Books:

- 1) Vakul Sharma, “Handbook of Cyber Laws “, McMillan ISBN 0333-93817-8.
- 2) KamleshAgrawala, Murli D. Tiwari, “IT and Indian Legal System”, McMillan ,ISBN 9780333 937921.
- 3) William Stallings “Cryptography and Network Security”, Pearson, 4th Edition, ISBN 978-81-775-8774-6.

References:

- 1) William Stallings, “Cryptography and Network Security Principles and Practices” Pearson, 4th Edition, ISBN 81-7758-774-9.
- 2) William Stallings, “Network Security Essentials Application and Standards”, Pearson, 4th Edition, ISBN 978-81-317-6175-5.

BCCA - III (SEMESTER – V)
Paper–VI (Elective-I): Personality Development
UBCCAT506.1

[Grade]

UNIT- I: Spoken English Basic Course

Spoken English Basic Course: Improve accuracy in Grammar, Expand vocabulary, Tenses, Prepositions, Modals, Voices, Direct/Indirect Speech, Adverbs, Adjectives.

Interpersonal skills: Introduction to Interpersonal Relations, Analysis of Life position.

UNIT-II: Communication Skills

Communication Skills: Introduction to Communication, Flow of Communication, Listening, Barriers of Communication, How to overcome barriers of communication **Stress Management:** Introduction to Stress Causes of Stress, Impact Management Stress, And Managing Stress.

UNIT –III: Group Dynamics &Team Building

Group Dynamics &Team Building: Group Dynamics, Importance of groups in organization, Team Interactions in group, How to build a good team? **Personality Development:** Inner Personality Development, Role of motivation & body language, Filling the GAP- Grooming, Attitude, Personality. **Creative Thinking:** Express creativity in everyday situations, Know the creative thinking process, and Develop a positive attitude.

UNIT-IV: Business Writing

Business Writing: Use of Simple structure while writing, apply a positive tone in business communication. **Time Management:** Time as a Resource, Identify Important Time, Management Wasters, Techniques for better Time Management. **Motivation:** Introduction to Motivation, Relevance and types of Motivation.

Reference:

- 1) Barun Mitra ,”Personality Development and Soft skills”, Oxford publications
- 2) “Soft skill Development”, Sai Jyoti publications, Prashant A. Dhanwalkar, S.R.Sharma,Gunjan Sharma

Books:

- 1) Vijay Agrawal ,”Personality Development for Students “, Paperback, 1st Edⁿ , ISBN:9789382419259,938241925X
- 2) Sourav Das ,” The Personality Development Book”

BCCA - III (SEMESTER – V)
Paper–VI (Elective-II) : Computers for Manager
UBCCAT506.2

[Grade]

Unit I

History of Internet, Internet Applications, Introduction to MIS, structure of MIS, ERP, CRM, SCM.

Unit II

Business Intelligence, Business Analytics: Online Analytical Processing Reporting and Querying, Online Analytical Processing.

Unit III

Data Text Web Mining and Predictive Analytics, Text Mining, Web Mining
Predictive Analytics.

Unit IV

Data Visualization, Geographic Information Systems (GIS), Virtual Reality, Real-Time Business Intelligence (BI), Competitive Intelligence (CI), the Role of Scorecards and Dashboards in Performance Management.

Books:

1. Computer for Manager, Dr. S. B. Kishor, Dr. Niyaz Sheikh, Dr. Chitra Dhawale, Dr. Rajani Singh, Publication Das Ganu
2. Elias Award, “System Analysis & Design”, Golgotha Publication, 2nd Ed,
ISBN: 81751568- X

BCCA - III (SEMESTER – V)
Paper–VI (Elective-III): Advertisement Management
UBCCAT506.3

[Grade]

Unit I: Principles of media management

Principles of media management and their significance. Media as an industry and profession.

Unit II: Ownership patterns of mass-media in India

Ownership patterns of mass-media in India: sole proprietorship, partnership, private limited companies, Public limited companies, trusts, co-operatives, religious institutions (societies) and franchises (chains).

Unit III: Foreign equity in Indian media

Foreign equity in Indian media (including print media) and Press Commissions on Indian newspaper. Management structure, Organizational structure. Functions of different departments: General Administration, Editorial, Finance.

Unit IV : Marketing

Circulation (sales promotion); Marketing (Advertising), Human Resource and Production. Economics of print and electronic media.

BOOKS:

1. **Media Management: Leveraging Content for Profitable Growth**
Andrej Vizjak, Max Josef Ringlsetter Springer Science & Business Media, 10-Dec-2002
Scott Basham ,”Pagemaker in Easy Steps”, Dream Tech, ISBN : 978-81-7722-0001
2. Kogent Learning Solution ,”Corel Draw In Easy Steps”, Dream Tech ISBN : 978-81-7722-960-8
3. “Photoshop In Easy Steps”, Kogent Learning Solution, Dream Tech ISBN: 978-93-5004-078-2

BCCA - III (SEMESTER – V)
Paper–VI (Elective-IV) : Accounting and Office Management
UBCCAT506.4

[Grade]

Unit I: Concept of Office Management.

Meaning and definition of office

Importance of office, Functions of Modern office, Sections and function of office departments, Meanings and definitions of Management, Functions of management, Meaning and definitions of office management, Approach of office management 1)Conventional office Management 2)Artistic office management 3)Scientific office management, Principles of office management, Functions of office management

Unit II: Office Organizing

Meaning and definition of office organization, Importance of office organization

Principles of office organization, Types of office organization, Meaning and definition of Delegation of Authority, Responsibility, Importance, features and factors of delegation of authority and responsibility, Principles of Delegation of Authority and responsibility, Problems in Delegation of Authority and responsibility, Job specialization, Job analysis and Job description, Meaning and Importance of organizational Relationship, Meaning of Span of Authority, Informal Organization, Conflict in Organization, Causes of organizational change.

Unit III: Office Communication

Meaning and definition of Communication, Importance of Communication, Features of Communication, Elements of Communication, Scope of Communication, Types and Media of communication, Principles of communication, Barriers in communication, Meaning, definition and principles of coordination, Relation between coordination and communication.

Unit IV :Office Manuals

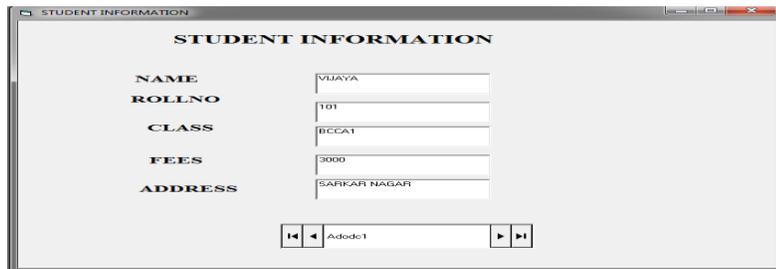
Meaning and definition of office Manuals, Purpose of office manual, Importance of office Manual, Types of Office Manual, Manual in use, Contents of Office manuals, Sources of Manual materials, Procedure of preparation of Office manual, Distribution revision and maintenance of office manuals, Evaluation of Office manuals, Advantages and Disadvantages of office manual, By use & purpose, Primary memory & Secondary memory, Input and output Devices, Merit and Demerit of computer, MS – Word, Excel, PowerPoint, Meaning, Applications Features Merit and Demerit, Introduction of Internet, Email- Creating receiving & sending Email.

Books :

- 1) Introduction To Computers, Dr Darrell W Hajek, ISBN-10: 1545236461
- 2) Office Management, Ankita Bhatia, ISBN-12: 1565435678
- 3) Accounting for Management, Ashok Sehgal, ISBN-12: 1678901234

BCCA - III (SEMESTER – V)
Practical-I: Advanced Visual Basic
UBCCAP507

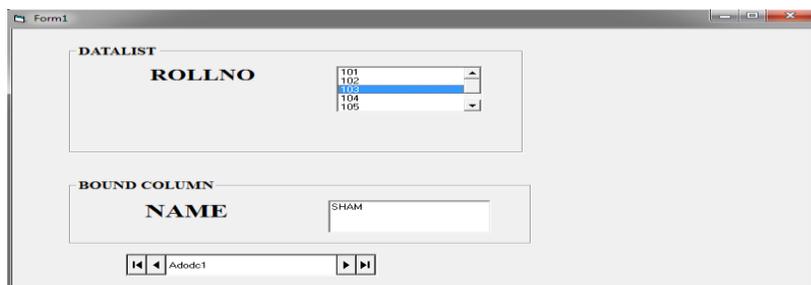
- 1) WRITE A PROGRAM TO DISPLAY STUDENT INFORMATION WITH ADODC CONNECTION WITH MS-ACCESS



- 2) WRITE A PROGRAM TO DISPLAY STUDENT INFORMATION WITH ADODC CONNECTION WITH MS-ACCESS THROUGH CODING Write a program to add, save and delete records



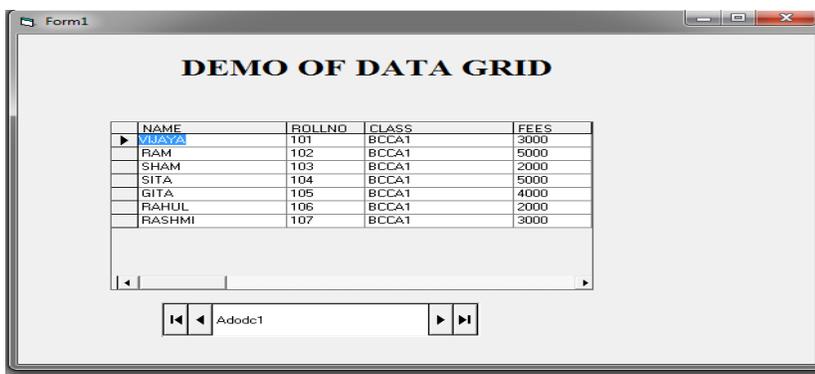
- 3) WRITE A PROGRAM TO DISPLAY ROLL NUMBER WITH THE HELP OF DATALIST CONTROL WITH ADODC CONNECTIVITY



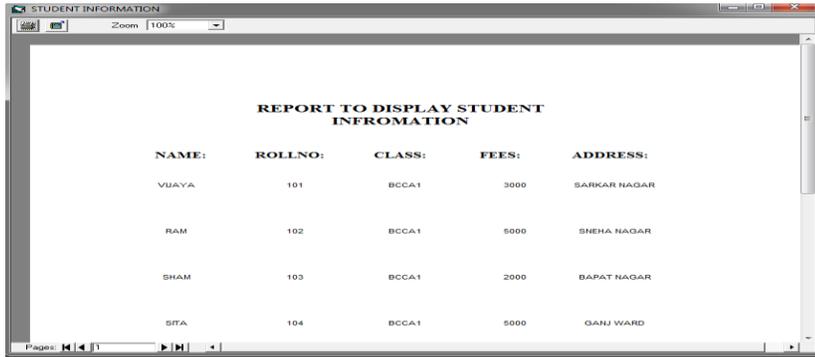
- 4) WRITE A PROGRAM TO DISPLAY ROLL NUMBER WITH THE HELP OF DATACOMBO CONTROL WITH ADODC CONNECTIVITY



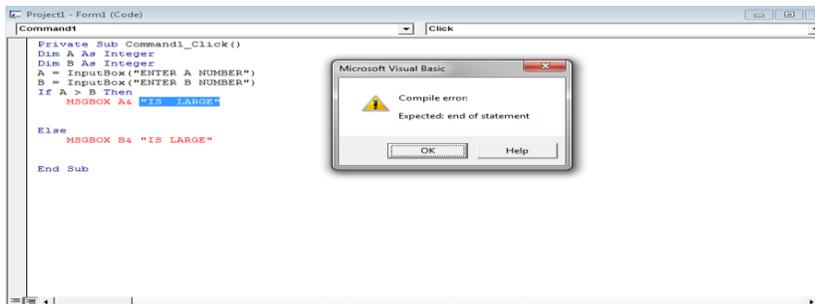
- 5) WRITE A PROGRAM TO DISPLAY STUD TABLE WITH THE HELP OF DATAGRID CONTROL WITH ADODC CONNECTIVITY



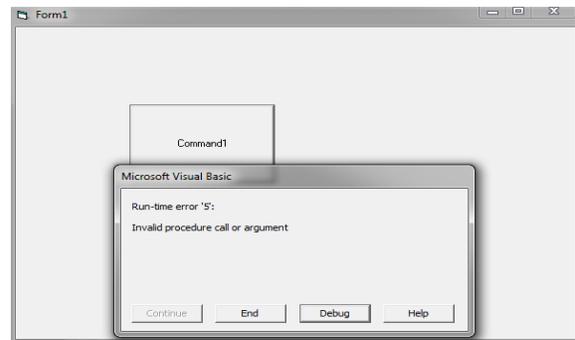
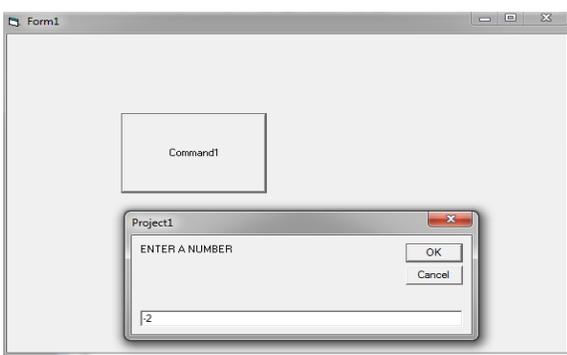
6) WRITE A PROGRAM TO DISPLAY STUDENT INFORMATION WITH THE HELP OF DATAREPORT WITH DATA ENVIRONMENT



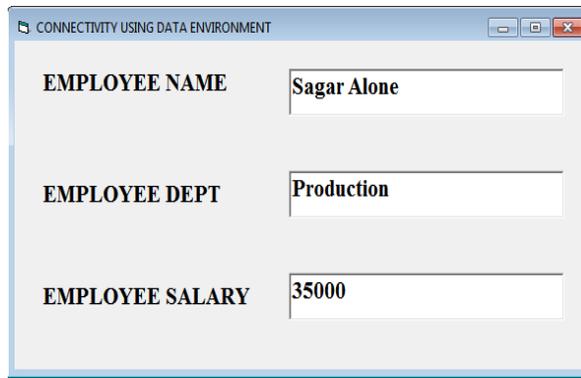
7) PROGRAM TO show demo of EXPLAIN SYNTAX ERRORS



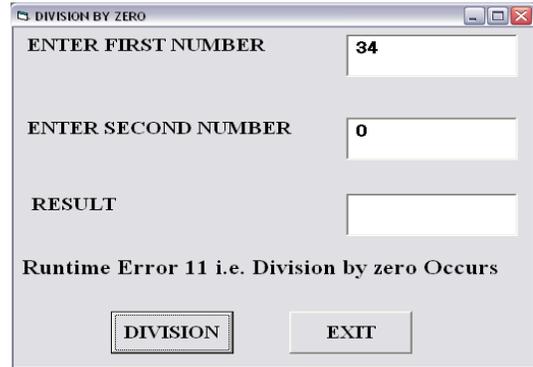
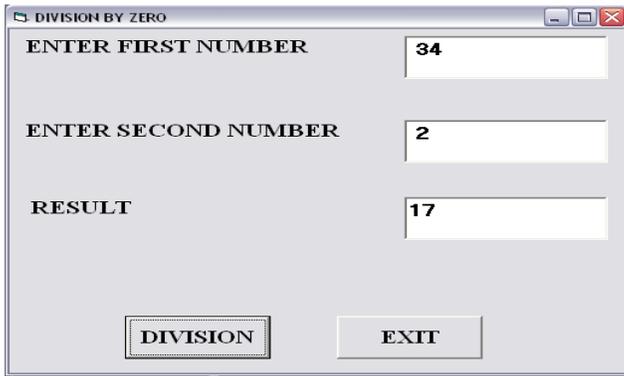
8) WRITW A PROGRAM TO show demo of EXPLAIN RUNTIME ERRORS



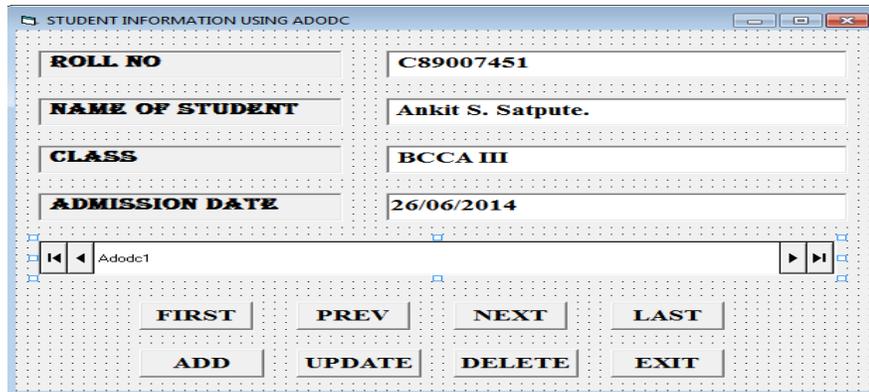
9) WRITE A PROGRAM IN VB TO DISPLAY EMPLOYEE INFORMATION USING DATA ENVIRONMENT .



10) WRITE A PROGRAM IN VB TO HANDLE RUNTIME ERROR ie. Division by zero



11) WRITE PROGRAM IN VB TO DISPLAY STUDENT INFORMATION USING ADO DC



1. WAP to Display “Hello World” on to the console.
2. WAP to create a class contains two methods with the same name but with different signature.(Method overloading)
3. WAP for Method overriding where calculate () method of super class is overridden by the calculate () method of sub class.
4. WAP to use super class reference to call the calculate () method.
5. WAP to explain the concept of Constructor and Parameterized constructor.
6. WAP to explain the concept of Inheritance.
7. WAP to access the super class method and instance variable by using super key from subclass.
8. WAP to prove that the default constructor of the Super class is available to Subclass by default.
9. WAP to create an Abstract class with an abstract method and then create a concrete class which provides the implementation to abstract methods of abstract class.
10. WAP to implement Multiple Interfaces simultaneously.
11. WAP to explain the concept of ‘this’ keyword.
12. WAP to create a thread and explain the use of the methods run () and start ().
13. WAP to create an Applet and uses all the methods of Applet.
14. WAP to create a Frame and has a button that response to the user action.
15. WAP to explain any one Layout Mechanism used in Java.
16. WAP to Bypass the generated exception from present method to the caller method by using throws keyword.
17. WAP to develop an Applet to print the Life Cycle Methods of applet on the HTML page

BCCA -III (SEMESTER – V)
Practical-II: E-Commerce and XML
Lab on UBCCAT508

1. Write a program to illustrate the simple XML Document.
2. Write a program to show the use of CDATA Section.
3. Write a program to declare the elements in DTD.
4. Write a program to show XML File with an Internal DTD.
5. Write a program to show XML File with an External DTD.
6. Write a program to show XML Document Attached to an External DTD.
7. Write a program to Create XSL Sheet for an XML Document.
8. Write a program to demonstrate the use of XSL Sheet in an XML Document.
9. Write a program to Create web page using XML.

BCCA - III (SEMESTER – V)
Practical II: Database Programming With Oracle
UBCCAP508

- 6) Create table DONAR with following fields (Dno, Dname, City, Age, Sex, BG, Quantity, date).
- 7) Insert the following records into the table DONAR.

Dno	Dname	City	Age	Sex	BG	Quantity	Date
101	RAJESH RAO	CHANDRAPUR	28	M	O+ve	100	25-AUG-11
102	ANAND SHARMA	NAGPUR	20	M	O+ve	200	26-AUG-11
103	VISHAL DESHPANDE	HYDERABAD	23	M	O-ve	250	26-AUG-11
104	SHRUTI RAKHUNDE	CHANDRAPUR	22	F	A+ve	100	27-AUG-11
105	ANUSHREE DHAKATE	-	22	F	A-ve	200	26-AUG-11
106	VIJETA DHAKATE	BALLARPUR	22	F	O+ve	100	25-AUG-11
107	AAMIR TAJA	CHANDRAPUR	21	M	O+ve	250	27-AUG-11
108	AMIR KHAN	DURGAPUR	25	M	O+ve	100	25-AUG-11

3) Perform following queries on above table.

1. Find all donars whose name starts between alphabets „A“ to „S“.
2. Find all donars who belongs to city CHANDRAPUR.
3. Find all donars who does not belongs to CHANDRAPUR city.
4. Find all donars who belongs to either CHANDRAPUR or NAGPUR city.
5. Find all donars whose city value contains NULL.
6. Arrange all donars in the sorted order whose age is between 18 and 22.
7. Find all male donars.
8. Find all male donars having O+Ve blood group.

9. Find all donars who donated the blood between 25-AUG-10 and 26-AUG-11.
10. Find all donars who donated more than 100 ml of blood.
11. Find all female donars who belong to city CHANDRAPUR having blood group „O+Ve“ in the sorted order of city?
12. Display all donars according their age.
13. Display the donar list in recent order of donation date.
14. Display all distinct blood group type.
15. Update the age of all donars by 1.
16. Mr. RAJESH RAO changed his name as RAMESH RAO and he is shifted to DURGAPUR. Note the above changes in the table.
17. Due to certain reason all the donars who donated the blood on date „26-AUG-11“ are rejected. Hence delete their information.
18. Find the donars names whose first name starts with letter „A“ and ends with „D“ irrespective of case letter.
19. Find the donar names whose last name starts between alphabets „D“ to „S“ (Ex. DESPANDE, SHARMA)
20. Find total number of donars having O+Ve group.
21. Find total quantity of blood of group A+Ve.
22. Average age of female donar of O+Ve group by rounding the age to next digit.
23. Display all donars who name pronounces like „AAMIR“;
24. Find the donars who donated the blood in the month of AUG.
25. Find the donars who donated the blood on 15th Aug. of year.

BCCA - III (SEMESTER – V)
Seminar
UBCCAS509

[Max. Marks: 50]

The seminar must be based on some current trends related to IT/Computer Science/Computer Application. A Student must present the PowerPoint presentation along with Seminar Report. Students are requested to follow the following guidelines while choosing & preparing their seminars.

Guidelines to BCCA Seminar

- 1) Name of seminar topic must be latest to the current trends and should not be repeated.
- 2) Seminar topic is to be approved by the concerned guide before the deadline prescribed by university time-table.
- 3) Seminar should be given individually.
- 4) Students are allowed to use graphics/animation/audio-video aids for their presentation.
- 5) Seminar work comprised ONLY Internal examination.
- 6) Students are requested to submit their seminar reports on or before the deadline with the concern of their respective guide otherwise students will be responsible for any appropriate action.
- 7) Seminar Report should be typed/printed in double line space using A4 size bond papers with a left margin of 1.5” and right margin of 1.0” with proper spiral binding to be done.
- 8) Students are requested to obtained necessary certificates and declaration to be duly enclosed in the report.

BCCA III (Semester VI)

Subject	Paper Code	Paper Name	Total Period# /Week	Credit	% of Assessment			
					IA	UE	Total	Min. Passing (40%)
Discipline specific Course(DSEC)-VII	UBCCAT601	Income Tax	4	4	20	80	100	40
Discipline specific Elective Course(DSEC)-VIII	UBCCAT602	Industrial Business Law	4	2	10	40	50	40
	UBCCAT603.1	(select any one) • Computerized Accounting (Tally)	4	2	10	40	50	
	UBCCAT603.2	• Statistics and Numerical Methods						
Discipline specific Course(DSEC)-IX	UBCCAT604	Project	4	4	20	80	100	40
Discipline specific Elective Course(DSEC)-X	UBCCAT605.1	(select any two) • Software Testing Quality Assurance.	4	2	10	40	50	40
	UBCCAT605.2 UBCCAT605.3 UBCCAT605.4	• Internet Language • Operation Research • Software Engineering	4	2	10	40	50	
Skill Enhancement Course-IV	UBCCAT606.1 UBCCAT606.2 UBCCAT606.3 UBCCAT606.4	(select any one) • PC-Maintenance • Any one Certification Course for MOOC'S • E-Waste Management • Supply Chain Management.	1	2	[Grade]	-		
Discipline specific Elective Course Practical (DSEC)-XI	UBCCAP607	Lab on UBCCAT603	4 Prac. Per Batch	2	20	30	50	20
Discipline specific Elective Course Practical (DSEC)-XII	UBCCAP608	Lab on UBCCAT605	4 Prac. Per Batch	2	20	30	50	20
Ability Enhancement Compulsory course (AECC)-VI	UBCCAS609	Seminar	2	2	50	-	50	20
Total				24	170	380	550	220

Note:-1) In a Group, if any student remains absent in one of the paper then candidate result will be considered as fail in that group even though he/she has scored minimum passing marks in other paper of that group. Candidate need to appear in both the papers of that group.

2) In Practical student must appear External Practical Exam conducted by University in order to clear practical exam

BCCA - III (SEMESTER – VI)
Paper–I: Income Tax
UBCCAT601

[Max. Marks: 80]

Unit- I : Introductory

- A) Previous Year and Assessment Year
- B) Definition, concept of Income
- C) Agricultural Income
- D) Residential Status. (Theory)
- E) Distinction between capital and Revenue receipts
- F) Introduction of Five Income Heads of Income Tax (Theory)
- G) Deduction under chapter VI-A

U/s: 80C,80CCC,80CCD,80D,80DD,80DDB,80E,80G,80GG,80U.

Unit-II : Computation of taxable Income from salary

Unit III : Income from House Property, Income Exempt from Tax

Unit-IV: Income from other sources, PAN and TAN (Meaning)

BOOKS RECOMMENDED

1. “Income Tax Law & Practice (59th Edition A.Y 2018-19”, Dr. H.C. Mehrotra Dr. S.P. Goyal, SahityaBhawan Publications
2. “Auditing and income tax”, Kaushal kumaragarwal

BCCA - III (SEMESTER – VI)
Paper–II: Industrial Business Law
UBCCAT602

[Max. Marks: 40]

Unit-1: Company ACT2013

- Introduction- Definition,
- Incorporation of company and Matters,
- Prospectus,
- Appointment of Directors – Accounts of companies ,Winding up.

Insolvency and bankruptcy code 2016

- Introduction,
- Applicability of Insolvency and bankruptcy code 2016,
- Insolvency and bankruptcy Board of India
- insolvency Professional Agencies,
- Insolvency Professionals,
- Information Utilities,
- Adjudicating authority.

Unit II: Foreign Exchange Management Act 1999

- Introduction – Application of the Act
- Definition-Regulation and management of foreign Exchange
- Authorized person
- contravention and penalties
- Adjudicating and appeal
- Directorate of Enforcement-
- Miscellaneous.

Unit III: - Contract Act 1872, Law of Contracts Topics

- Indian Contract Act,1872
- Offers and Acceptance.
- Agreement and contract,
- Standard Form Contract.
- Promissory Estoppels
- Essentials of a valid Contract.
- Classification of Contract.
- Consideration.
- Termination OR Discharge of Contract.
- Remedies of Breach of Contract.

Unit IV: - Human Resource Development

- PERSPECTIVES IN HUMAN RESOURCE MANAGEMENT: Evolution of human resource management
- The importance of the human factor
- Challenges – Inclusive growth and affirmative action
- Role of human resource manager
- Human resource policies
- Computer applications in human resource management
- Recruitment
- Selection
- induction
- PERFORMANCE EVALUATION AND CONTROL PROCESS: Method of performance evaluation
- Feedback – Industry practices. Promotion, Demotion, Transfer and Separation.

BOOKS RECOMMENDED

- 1) Companies Act with Rules-Taxmann's Publication
- 2) Companies Act 2013 – Ravi Pulians, Mahesh PulianiBhart's Publication.
- 3) Guide to insolvency and Bankruptcy code 2016- Taxmann's Publication.
- 4) Guide to FEMA- T.R Ramamurthy, Bhart's Publication.
- 5) The Indian Contract Act 1872- Publication By Lexis Nexis
- 6) Human Resource Management –By David A. Decenzo ,stephenP.Robbins, Swan C. verhulst.

BCCA - III (SEMESTER – VI)
Paper–III (Elective-I): Computerized Accounting (Tally)
UBCCAT603.1

[Max. Marks: 40]

UNIT-I: Introduction to Accounting and Computerized Accounting

Introduction to Accounting, Advantages of Accounting, Books of Accounts, Classification of Accounts, Financial Statements, Inventory Management, Computerized Accounting. Advantages of Computerized Accounting, Manual Vs Computerized Accounting, Need of Computerized Accountings, Accounts Organization, Accounts Group, Loans, Liabilities, Assets and Budget.

UNIT-II: Introduction to Tally Software

Accounting Software's, Introduction to Tally Software, Features of Tally, Tally Screen, Company Information, Creating New Company, Gateway, Selection of Company, Selection of Options Button at Gateway, Working with Multiple Companies, Company Features: Accounting and Inventory Configuration: General, Numeric Symbols, Voucher Entry, Invoice Order Entry, Printing.

UNIT-III: Account Info

Account Info Menu: Groups - Create New Group, Creation of Primary Group. Normal and Advanced Information, Ledger Accounts, Cost Categories. Cost Centers, Creation of Budget, Types of Budget. Voucher-Voucher Entry. Creation of Voucher Screen. Types of Voucher, Selection of Voucher Types, Post Dated Voucher, Printing of Vouchers, Check Printing, Advance Features of Account Voucher.

UNIT-IV: Inventory Info and Reports

Inventory Info: Stock Item, Stock Groups, Stock Categories, Go down, and UNIT of Measures, Introduce Goods and Services Tax (GST), About Goods and Services Tax (GST), Activating Tally in GST, Setting Up GST ,GST Taxes & Invoices, Understanding SGST, CGST & IGST, Creating GST Masters in Tally. Purchase and sales Voucher with GST, Updating GST Number for Suppliers, Display: Balance Sheet, P/L Accounts, and Ratio Analysis. Display- Accounting Report Display, Inventory Report Display, and MIS Report Display, Printing Reports. Export of Data .Data Maintenance- Bank Reconciliation, Security - Users and Password, Security Controls, Types of Security, Creation of New Security, and Tally Audit.

Practical

Tally Software - All Accounting Problems Viz. Balance Sheet, Profit and Loss, Cost Centers, Cost Categories Accounting Voucher, Budget, Sales and Purchase, Assets and Liabilities, Inventory Problems, Financial Statements, Books of Accounts, Ledger, Etc.

Practical on Intra-State Purchase and sales Entry in GST (SGST + CGST), Practical on Inter-State Purchase and sales Entry in GST (IGST).

Books:

- 1) K.K. Nadhani "Accounting with Tally", BPB Pub., ISBN-81-7656-494-X
- 2) K.K Nadhani and A.K. Nadhani, "Tally Tutorial", BPB Pub., ISBN- 81-7656-516-4
- 3) Dr. S.B. Kishor, Vijayalaxmi Pareek, "Computerized Accounting Tally", Das Ganu Publication, ISBN-978-93-81660
- 4) S.K.Mishra, "Indirect Tax Laws : PART I : GOODS & SERVICES TAX (GST)" Notion Press; 1 Edition (2018) ISBN-:16-4249-030-X

References:

- 3) Anthony R-N. and J.S.Richard, "Accounting Principle", Irwin Inc. Pub..

BCCA - III (SEMESTER – VI)
Paper–III (Elective-II): Statistics and Numerical Methods
UBCCAT603.2

[Max. Marks: 40]

Unit-I: Interpolation and Extrapolation

Interpolation and extrapolation: Need, Meaning, Importance and uses of interpolation and extrapolation.

- Binomial expansion method.
- Newton expansion method.
- LaGrange's method.

Unit-II: Analysis of Time series

Analysis of Time series: Definition, Uses and Components of Time Series.

- Graphic or Free hand curve fitting method.
- Semi Average method.
- Moving Average method.
- Least square Method.

Unit-III: Probability

Probability

- Binomial Distribution.
- Poisson distribution.
- Normal Distribution.

Unit-IV: Introduction to Numerical Methods

Introduction to Numerical Methods: Approximation and Error in Computing, Significance of Error, Rounding off, Error in Computing, Data Errors, Conversion Error, Round off Error, Truncation Error, Modelling Error, Blunders, Absolute and Relative Error, Error Propagation, Conditional and Stability, Error Estimation, Minimizing the total error, Pitfalls and Precautions

Books:

- 1) Dr Rahul Sawlikar, "Basic of Computer and Statistical Technique", Das Ganu Prakashan
- 2) Gupta & Kapoor, "Fundamental of Mathematical Statistics" Sultan Chand & Sons Publication, 11th Edition, ISBN- 8180540049
- 3) A.K. Agrawal & Sahib Singh, "Fundamental of Statistics", PHI, 4TH Ed.
- 4) S.S. Sastry, "Introducing methods of Numerical Analysis", PHI Pub, 3rd Ed, ISBN- 81-203-1266-X
- 5) Dr Rahul Sawlikar , 'statistical method', payal prakashan

References:

- 1) Levin , "Statistics for Management" PHI Publication, Murray R. Spiegel, "Statistics"
- 2) S.P.Gupta, "Statistical Method", Sultan Chand & Sons, ISBN-818054026X
- 3) E Balgurusway, "Numerical Methods", TMH, ISBN-0-07-463311-2
- 4) Francis Scheil, "Numerical Analysis", Schaum's Outline, 2nd Ed, ISBN- 0-07-055221-5

BCCA - III (SEMESTER – VI)
Paper–VI-Project
UBCCAT604

[Max. Marks: 100]

Instruction

Towards the end of the second semester of study, a student will be examined in the course “Project Work”.

- A. Project Work may be done individually or in groups (**Maximum 5 students**) in case of bigger projects. However if project is done in groups, each student must be given a responsibility for a distinct module and care should be taken to monitor the progress of individual student.
- B. The Project Work should be done using the tools covered in **BCCA**
- C. The Project Work should be of such a nature that it could prove useful or be relevant from the System-oriented/Application/commercial / management angle.
- D. The project work will carry 100 marks.
- E. The external viva-voce examination for Project Work would be held as per the Examination Time Table of the final year of study, by a panel of one external and one Internal examiner.

Types of Project

The Applications Areas of project - Financial/Marketing/Database Management System/ Relational Database Management System/E-Commerce /Internet/ Manufacturing/ web Designing/Hardware and Software interaction based etc.

Project Proposal (Synopsis)

The project proposal should be prepared in consultation with the guide. The project guide must be a person having minimum Qualification MCM/M.Sc. (Computer Science/IT) / MCA/ M.Sc. (Maths/Electronics/Statistics/Physics + Post B.Sc. Dip. In Comp. Sc. & Appl.)The project proposal should clearly state the objectives and environment of the proposed project to be undertaken. It should have full details in the following form:

1. Title of the project
2. Objectives and Hypothesis of the Project
3. Project Category (DBMS/RDBMS/OOPS/Web Designing/Internet etc.)
4. Tools/Platform, Languages to be used
5. A complete Structure of the program:

- i. Analysis.
 - ii. Numbers of Modules.
 - iii. Data Structures or Tables
 - iv. Process Logic.
 - v. Types of Report Generation.
6. Scope of future Application.

Project Report Formulation.

1. Title Page.
2. Certificate Page.
3. Declaration Page.
4. Acknowledgment Page.
5. Index or Content Page.
6. Documentation.
 - i. Introduction/Objectives.
 - ii. Preliminary System Analysis.
 - iii. Source Code.
 - iv. Input screen & Output Screen.
 - v. Features of Project and its limitations.
 - vi. Future Scope of the project.
 - vii. Bibliography

BCCA - III (SEMESTER – VI)
Paper–V (Elective-1): Software Testing Quality Assurance
UBCCAT605.1

[Max. Marks: 40]

UNIT –I: Software Testing

A Strategic Approach to Software Testing- Verification and Validation, Organization for Software Testing, Test Strategies for Conventional Software – UNIT Testing, Integration Testing.

Unit II : Testing Strategies

Test Strategies for Object –Oriented Software- Unit Testing, Integration Testing, Validation Testing – Test Criteria Configuration Review, Alpha and Beta Testing, System Testing-Recovery, Security, Stress and Performance Testing, the Art of Debugging – the Debugging Process, Psychological Consideration, Debugging Strategies, Correcting the Errors.

UNIT- III: Risk Management

Software Risks, Risk Identification –Assessing Overall Project Risk , Risk Components and Divers, Risk Projection – Developing a Risk Table , Assessing Risk Impact, Risk Mitigation, Monitoring and Management,

Unit – IV: Quality Assurance

Quality Management- Quality Concept, Formal Technical Reviews – the Review Meeting, Reporting and Record Keeping , Review Guideline.

Statistical Software Quality Assurance Generic Example, Six Sigma for Software Engineering.

Books:

- 1) Elias M. Award, “System Analysis and Design”, Galgotia Publication
- 2) Dr. S.B. Kishor, “ Information System Analysis and Design”, Das GanuPrakashan,
- 3) R. Pressman, “ Software Engineering”.

BCCA - III (SEMESTER – VI)
Paper–V (Elective-II): Internet Language
UBCCAT605.2

[Max. Marks: 40]

UNIT-I: VB Script

Evolution of Scripting Language, Introduction to VB Script, Features of VB Script, Data Types in VB Script, Elements of VB Script: Identifiers, Operators, Control Statements, Control Structure, Functions: Variant Function, Math Function, Formatting Function, String Manipulation Function, Type Conversion Methods Supported by VB Script, Arrays in VB Script, Regular Expression.

UNIT–II: JavaScript

Introduction, Features of JavaScript, Structure and Basic Syntax of JavaScript, Data Types, Operators Supported by JavaScript, Control Structure, Dialog Boxes Supported by JavaScript, Functions in JavaScript Built in Function, User Defined Function, Recursion, Arrays

UNIT–III: JavaScript-Object

JavaScript Document Object Model: Built-in Objects in JavaScript: String Object, Math Object, Date Object, Boolean Object, Number Object, User Defined Objects, Handling (Web Page) Events Using JavaScript, Form Objects: - Methods and Properties of Form Object, the Text Element, the Button Element (Submit and Reset Element), Password Element, Checkbox Element, Radio Element, Text area Element, Select and Option Element, Multiple Choice Select List Cookies.

UNIT–IV: ASP

Concept of ASP Features of ASP, ASP Syntax, ASP Variable, ASP Objects, Creating Web Using ASP, Connecting to Database Using ASP.

Books:

- 1) Ivan Bayross, “Web Enabled Commercial Application, Development”, BPB Pub.
- 2) Pearl, Cgi, “HTML JavaScript, DHTML”, ISBN- 8-8333-008-8
- 3) Lee Purc Mary Jan, “the ABCS of JavaScript”, ISBN - 81-7029-826-1

References:

- 1) Yehuda Shiran and Tomer Shiran, “Learn Advanced JavaScript Programming”, BPB Publication, ISBN - 81-7029-937-3
- 2) Adrian Kingsley-Hughes, Kathie Kingsley-Hughes , Daniel Read –“VBScript Programmer's Reference”,ISBN--10-0764559931

BCCA - III (SEMESTER – VI)
Paper-V (Elective-III): Operation Research
UBCCAT605.3

[Max. Marks: 40]

UNIT I: Definition and Meaning of Operational Research

Definition and Meaning of Operational Research, Introduction to Operational Techniques, Basics of Operational Research, Different Phases of an Operational Research Study, Scope and Limitations of Operational Research, Mathematical Modeling of Real Life Problem.

UNIT II: Linear Programming and Allocation Models

Linear Programming and Allocation Models: Introduction, Requirement Applications, formulation, solution by graphical methods.

UNIT III: Transportation problems

Transportation problems: North West Corner Cell Method (NWCM), Least Cost Cell Method (LCCM), Vogel's Approximation Method (VAM).

Assignment Problem: Hungarian Method

UNIT-IV: Network Analysis

Network Analysis: PERT / CPM method.

Queueing Theory: Queueing System, Element of a Queueing System. Poisson Queueing System, Non Poisson Queueing System, Cost Models In Queueing

Books:

1. J.K. Sharma, "Operation Research Problems and Solutions", Macmillan, ISBN 9781403931511
2. V.K. Kapoor, "Operation Research" ISBN: 0470112689
3. Basic of Computer and Statistical Techniques – Dr. Rahul Sawlikar and Dr. S. B. Kishor,
Das Ganu Prakashan, Nagpur – ISBN –978-81-921757-8-2

References:

1. Sancheti & Kapoor, "Business Statics", Sultan Chand & Sons, New Delhi.
2. Kanti Swarup, P.K. Gupta, Man Mohan, "Operation Research", Sultan Chand & Sons,
ISBN81-8054-535-0
3. Statistical Methods- S.P.Gupta,S. Chand and Company, New Delhi
4. Statistics, Theory, Method and Application- Sancheti and Kapoor.

BCCA - III (SEMESTER – VI)
Paper–V (Elective-IV): Software Engineering
UBCCAT605.4

[Max. Marks: 40]

UNIT - I: Introduction to Software Engineering

Introduction to Software Engineering: The evolving role of software, Changing Nature of Software, Software myths. **A Generic view of process:** Software engineering- A layered technology, a process framework, The Capability Maturity Model Integration (CMMI), Process patterns, process assessment, personal and team process models.

UNIT - II: Process models

Process models: The waterfall model, Incremental process models, Evolutionary process models, The Unified process. **Software Requirements:** Functional and non-functional requirements, User requirements, System requirements, Interface specification, the software requirements document. **Requirements engineering process:** Feasibility studies, Requirements elicitation and analysis, Requirements validation, Requirements management.

UNIT - III : System Models

System Models: Context Models, Behavioral models, Data models, Object models, structured methods. **Design Engineering:** Design process and Design quality, Design concepts, the design model. **Creating an architectural design :** Software architecture, Data design, Architectural styles and patterns, Architectural Design.

UNIT - IV : Testing Strategies

Testing Strategies: A strategic approach to software testing, test strategies for conventional software, Black-Box and White-Box testing, Validation testing, System testing, the art of Debugging.

Product metrics: Software Quality, Metrics for Analysis Model, Metrics for Design Model, Metrics for source code, Metrics for testing, Metrics for maintenance.

Metrics for Process and Products: Software Measurement, Metrics for software quality.

Books:

1. Software Engineering, A practitioner's Approach- Roger S. Pressman, 6th edition. McGrawHill International Edition.
2. Software Engineering- Sommerville, 7th edition, Pearson education.
3. Software Engineering- K.K. Agarwal & Yogesh Singh, New Age International Publishers

Reference:

1. Software Engineering, an Engineering approach- James F. Peters, Witold Pedrycz, John Wiely.
2. Systems Analysis and Design- Shely Cashman Rosenblatt, Thomson Publications

BCCA - III (SEMESTER – VI)
Paper–VI (Elective-I): PC-Maintenance
UBCCAT606.1

[Grade]

Unit I: Preventive Maintenance

Introduction, Need, Tools, Materials. Procedures : Active Hardware Maintenance, Active Software Maintenance, Passive Maintenance Procedures, Heat and Temperature Control, Dust and Pollution Control, EMI Electrostatic Discharge Control, Humidity and Corrosion Control, Preventive Maintenance Schedule. BIOS and CMOS, Working with the BIOS Setup Program.

Unit II: CPU and Monitor

History & Study of Different Types of CPUs, Terminology Used with CPU, Data Processing Inside CPU, RAM & ROM, Different Types of ROM, Virtual Memory, Installing and Removing Memory. Video Cards and Monitors, Display Resolution, Features, Video Driver, CRTs Working, LCDs Working, Monitor Resolution, Interfacing, Refresh Rate, Monitor Driver, Adjusting Display Settings in Windows

Unit III: Study of Drives

Study of Different Types of Drives, Hard Drive Interfaces- IDE, SCSI, SATA Hard Drive Performance, Installing Hard Drives, Partitioning, Disk Formatting, Common Hard Drive Problems. Installation of Operating System and Software: Installing Video Card, Installing The CD Rom Drive , Installing Key Board and Mouse, Installing Sound Card, Installing Modem, Installing the Motherboard , Installing the Power Supply.

Unit IV: Study of Printer, Formatting and Trouble Shooting

Printer Features, Printer Performance, Print Quality, Print Speed, Printer Types, Printer Working, Installation of Printer Driver, Cleaning a Printer, Common Printer Problems. **Formatting:** Formatting PC, Backup of Data Before Formatting, System Restore, Precautions for Formatting.

Trouble Shooting: Diagnostic and Repair Tools - Diagnostic Software Tools- Diagnostic Hardware Tools, Assembling and Disassembling PC. Troubleshooting Display Problems, Memory Troubleshooting, Power Supply Testing and Problems Troubleshooting. Cleaning and Trouble Shooting of Keyboards, Mouse, Front Panel Indicators and Speakers Troubleshooting.

Books:

- 1) Fundamentals of Computers - Raja Raman (Prentice Hall of India) , ISBN 81-203-2581-8
 - 2) Basics of Computer Hardware - BPB Pub
 - 3) Troubleshooting Your Pcs for Dummies 3rd Edition – Dan Gookin, Willey Publishing Inc. ISBN : 9780470230770
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BCCA - III (SEMESTER – VI)

**Paper–VI (Elective-II): Any One Certification course from MOOC'S
UBCCAT606.2**

[Grade]

Enroll and study one course from MOOC'S

BCCA - III (SEMESTER – VI)
Paper–VI (Elective-III): E-Waste Management
UBCCAT606.3

[Grade]

UNIT – I : Sources

Sources, Composition and characteristic of hazardous waste, Hazardous Waste (Management and Handling) Rules, 1989 and amendments, Federal Hazardous Waste Regulations under RCRA, Superfund, CERCLA and SARA. Toxicology, public health impact, Protocols, issues and challenges in transportation of hazardous waste.

UNIT – II : Characterization of medical waste

Characterization of medical waste- Bio-medical wastes (Management and Handling) Rules, 1998, Amendments and guidelines, segregation, packaging, storage, transport of infectious waste. Techniques of Bio-medical waste management. Health and safety rules. Protocols, issues and challenges in transportation of Biomedical waste.

UNIT – III : Treatment method

Treatment method- Autoclave, Hydroclave, Microwave, Chemical Disinfection, Solidification and stabilization, Bioremediation, Thermal Conversion Technologies, accumulation and storage of hazardous waste, land disposal of hazardous waste, other treatment and disposal method. Common Hazardous Waste Treatment facilities (TSDF).

UNIT – IV : E-waste:

E-waste: Introduction, toxicity due to hazardous substances in e-waste and their impacts, domestic e-waste disposal, e-waste management, technologies for recovery of resource from electronic waste, guidelines for environmentally sound management of e-waste, occupational and environmental health perspectives of recycling e-waste in India.

Text Books:

1. Tchobanoglous G., Theisen H., Viquel S.A., “Integrated Solid Waste Management: Engineering, Principles and Management issues”, Tata McGraw Hill Publishing Company Ltd., New Delhi.
2. CPHEEO Manual on Municipal Solid Waste Management.

Reference Books:

1. Peavy H.S., Rowe D.R., Tchobanoglous G., “Environmental Engineering”, Tata McGraw Hill Publishing Company Ltd., New Delhi.
2. Cunningham W.P., Cunningham M.A., “Principles of Environmental Science”, Tata McGraw Hill Publishing Company Ltd., New Delhi.
3. Johri R., “E-waste: implications, regulations, and management in India and current global best practices”, TERI Press, New Delhi.
4. [R4] Krishnamoorthy B., “Environmental Management, Text Book and Cases”, PHI Learning (P) Ltd., New Delhi.

BCCA - III (SEMESTER – VI)
Paper–VI (Elective-IV): Supply Chain Management
UBCCAT606.4

[Grade]

UNIT I: Supply Chain Management (SCM)

Introduction to concept SCM and physical distribution Importance, advantages, necessity, limitations to SCM Seven Principles of SCM: Explanation Five basic components in process of SCM Direct, Indirect distribution: Introduction

UNIT II: Intermediaries in SCMa18

Meaning, Information of intermediaries Channel of distribution: Meaning
Channel of distribution for Industrial goods Channel of distribution for Consumer goods Channel of distribution in service industries

UNIT III: e-Retailing

Meaning, Definition, Importance, Objects Information and Communication Technology (ICT): Meaning, Importance Comparison between traditional marketing and e-retailing
E-Marketing: Meaning, Importance, Objectives Comparison between traditional Marketing and e-marketing

UNIT IV: TeleMarketing

Meaning, Objectives, Categories Telemarketing technology: Introduction Buyer to Buyer (B2B): Explanation of process. Buyer To Consumer (B2C): Explanation of process. Internet business: Meaning, Objectives, Importance Internet business subset
Enterprise communication and collaboration: Introduction e-commerce system issues
Involved in internet business Classification of issues in respect to security, Privacy etc. Career Development: Meaning, Importance, job opportunities

Books:

- 1) Daniel Stanton, “Supply Chain Management”

BCCA - III (SEMESTER – VI)
Practical-I Computerized Accounting (Tally)
UBCCAP607

[Max. Marks: 50]

- A. Create the following companies by using the details given below :
- Name of the Company : WINDOWS PVT LTD
Address : Tukum, Chandrapur
E-mail : icat@icat.co.in
Income Tax number : IT 10003
Local sales tax no : Not applicable
Currency Symbol : Rs
Financial year from : 01-04-09
Books beginning from : 01-04-09
Password security : Not Required
- B. Create another company named Rahul Kapoor Computer Ltd having financial year beginning from 1st April 09 and the books are maintained from 1st August. Enter other details as per your assumptions. Keep the Income tax number and Sales tax number & local sales tax number blank as they have not been given as yet Upon saving the company enter the income tax number as Gk3003.
- C. Create the company named GK Association having default financial year and books of accounts. Enter other details as per your assumption.
- D. Alter the company named Rahul Kapoor Computers Ltd with the following changes:
Financial year : 01-05-11
Books beginning from : 01-09-11
Income tax number : RK008
- E. Delete the company created for GK Association.
- F. Create a Company with all relevant details including VAT options
1. Create Group and ledger following the hierarchy shown below:
Sundry Debtors (predefined group)
1. North India debtors(sub group)
 - a. New delhi debtors(sub-group)
 - i. Dr.kishor & co. (ledger account)
 - ii. Madhavi & co.(ledger account)
 - b. Lucknow debtors
 - i. Vijayalaxmi & co.
 - ii. Preeti & co.
 2. South India debtors
 - a. Bangalore debtors
 - i. Daya mart Pvt.Ltd
 - b. Hyderabad debtors
 - i. Akhil design pvt. Ltd

2. Create the following multi-ledgers and multi-group

NAME	GROUP	OPENING BALANCE
Rahul Kapoor Computers Pvt Ltd	Debtors --- South	40000 Dr
Shyam Pvt Ltd	Debtors --- South	0.00
Geeta Computers	Debtors --- North	0.00
Sarita Association	Debtors --- North	0.00
Ceema Group	Debtors --- East	0.00
Meenakshi Pvt Ltd	Debtors --- East	0.00
Rasahi Ltd	Debtors --- International	0.00
UGI International	Debtors --- International	0.00
Citi Bank (See note ii)	Bank Account	300000 Dr
Bank of Baroda	Bank Account	40000 Dr
Sales Domestic	Sales Account	0.00
Sales--- International	Sales Account	0.00
Purchases	Purchase Account	0.00
Furniture	Fixed Assets	600000 Dr

3. Create the ledgers under appropriate predefined groups

1. Cash a/c Computer sales a/c
2. General reserve a/c
3. Capital reserves a/c
4. Mortgage loan a/c
5. Bank overdraft a/c
6. Raw material a/c
7. Opening stock a/c
8. Closing stock a/c
9. Fixed deposit a/c
10. Security deposit a/c
11. Buildings a/c Machinery a/c
12. Furniture a/c Commission received a/c
13. Printer purchase a/c Commission paid a/c
14. Rent received a/c Salary a/c
15. Rent paid a/c Indian bank a/c
16. Wages a/c Sales returns a/c
17. Capital a/c Depreciation a/c
18. Purchase returns a/c

19. John & Co. a/c (purchased goods from this company)
20. Ram agency a/c (sold goods to this company)

CREATING VOUCHERS

4. Create vouchers and view Profit and loss a/c and Balance sheet.

1. Cash sales Rs. 10000
2. Cash purchase Rs. 2000
3. Sales to 'X' on credit Rs. 10000
4. Purchase from 'Y' on credit Rs. 5000
5. Depreciation on machinery Rs 2000

5. Create vouchers and view Profit and loss a/c and Balance sheet for the following:

1. Uday started business with capital Rs. 100000 by way of bank cheque
2. He purchased material for business Rs 20000 in cash
3. He brought material for business Rs.10000 on credit from X
4. He sold goods to Y on credit Rs 50000
5. He sold goods for cash Rs 60000
6. He paid salaries Rs. 20000 by way of cheque.
7. Received cash from Y Rs. 49000 and discount allowed Rs.1000

6.CREATING PROFIT AND LOSS ACCOUNTS AND BALANCE SHEET

Record the following manual trail balance in tally

Trail balance of Mr. Vijay

Particulars	Dr.(Rs)	particulars	Cr. (Rs)
Cash in hand	25000	Sales	200000
Stock	40000	Purchase return	1000
Wages	25000	Creditors	25000
Purchases	100000	Capital	30000
Sales returns	3000	provision for bad & doubtful debts	4000
Salaries	25000		
Debtors	42000		
	<hr/>		<hr/>
	260,000		260,000

Adjustments:

1. Stock (closing) Rs. 25000

2. Salaries outstanding Rs.5000
3. Write off Rs.2000 as bad debts for Rs. 5000

Prepare profit and loss A/C and balance sheet of Mr. Vijay in tally after taking into account of the above adjustment.

. From the following information prepare S.P. college accounts

Debit	Rs	Credit	Rs.
Building	50000	Admission fees	10000
Sports equipments	20000	Tuition fees	100000
Library books	30000	Government grant	50000
Shares of 'XYZ Co.	50000	Rent	10000
Salaries	10000	General fund	10000
Stationery	10000	Miscellaneous receipts	
General expenses	15000		30000
Cash at bank	25000		
	210,000		210,000

Additional information:-

1. Tuition and other fees outstanding Rs. 10000
2. Sports equipments Rs. 10000 was purchased at the beginning of year
3. Provide 10% depreciation on building and sports equipments
 - 1) 8. Create Stock Group and Stock Categories in the company named WINDOWS PVT LTD.

STOCK GROUPS

1. Systems
2. Parts
 - a. Motherboard
 - b. CD-ROM drives
3. Software
 - a. Ace
 - b. King
4. Hardware
 - a. Keyboard
 - b. CPU
 - c. Mouse

Stock Categories (for items belonging to Software Stock Groups)

1. Software

- a. Database
- b. Spreadsheet

Godowns

- 1. On site
- 2. Warehouse

2) Continue working with WINDOWS PVT LTD Company. The business transactions to the company for the early part of Aug 11 are:

9. A publication company maintains its stock in the following way.

s.no	Computer books	Science books	Others books
1.	100 fundamentals of computers @150 each	200 Newton science @ Rs. 200 each	1000 English novels @ Rs. 100 each
2.	500 internet @ 50 each 300 java @ 150 each	500 general science @ 300 each 1000 science dictionary @ 500 each	500 children books @ 200 each ---
3.			

Place the information in appropriate place.

INVENTORY VOUCHERS

10. Creating vouchers entry from the following transaction and view balance sheet.

1. Started business with cash Rs. 200000
2. Purchased 100 litres of coconut oil @ Rs 100 per litres from Kerala co. Ltd
3. Purchased 500 soaps @ 50 each from Hindustan lever ltd.
4. Purchased 1000 @ 20 each detergent soaps from nirma washing co. ltd.
5. Purchased 1000 kgs of rice @ 15 per kg on cash basis from konaseema rice ltd.
6. Purchased 500 kgs of rice Rs 20 per kgs from Punjab rice ltd
7. Sold 400 soaps @ Rs 60 each to 'X' ltd
8. Sold 1000 kgs of rice @ 20 each to 'y' Ltd.
9. Sold 800 litres of coconut oil on cash basis @ Rs. 125 each.
10. Purchased furniture Rs 5000
11. Sold 1000 detergent soaps on cash basis @ Rs. 25
12. Purchased weighting machine for Rs 2000
13. Charge depreciation on furniture and weighting machine @ 10% each
14. Returned 10 litres of coconut oil to Kerala co. Ltd due to expiry date.
15. Paid rent Rs 2000 by cheque.
16. Paid sales promotion expenses Rs 5000
17. Cheque received from 'X' Ltd Rs 20000
18. Cash received from 'Y' Ltd Rs 15000
19. Cheque sent to Kerala Co. Ltd for Rs. 8000.
20. Cash given to Hindustan Ltd Rs. 25000
21. Cheque sent to nirma washing Co. Ltd for Rs. 20000.

BCCA - III (SEMESTER – VI)
Practical II : Internet Language
UBCCAP608

[Max.Marks-50]

- 1) 1) Write a javascript to find absolute number.
- 2) Write a javascript to Demonstration of Typeof operand.
- 3) Write a javascript To Check wheather entered number is positive or Negative or Zero.
- 1) Write a javascript code to demonstrate to switch case.
- 2) Write a javascript to find the sum of first N natural numbers
- 3) Write a javaScript to find sum of each digit of a number.
- 4) Write a javascript to demonstrate of Array objects for accepting and displaying list of names in descending order.
- 5) Write a javascript to Check entered String is palindrome or not.
- 6) Write javascript to demonstrate a Date Objects for displaying current day and check current year is leap or not.
- 7) Write a javascript to demonstration of eval function.
- 8) Design a program for displaying marks and percentage of student in javascript using event handling.
- 9) Write a vbscript program to find the factorial of given number.
- 10) Write a vbscript to demonstrate the program to find largest among two number.
- 11) Write Vbscript to create dialog boxes .
- 12) Demonstration of array in vbscript.

BCCA - III (SEMESTER – VI)

Seminar UBCCAS609

[Max. Marks: 50]

The seminar must be based on some current trends related to IT/Computer Science/Computer Application. A Student must present the PowerPoint presentation along with Seminar Report. Students are requested to follow the following guidelines while choosing & preparing their seminars.

Guidelines to BCCA Seminar

- 1) Name of seminar topic must be latest to the current trends and should not be repeated.
- 2) Seminar topic is to be approved by the concerned guide before the deadline prescribed by university time-table.
- 3) Seminar should be given individually.
- 4) Students are allowed to use graphics/animation/audio-video aids for their presentation.
- 5) Seminar work comprised ONLY Internal examination.
- 6) Students are requested to submit their seminar reports on or before the deadline with the concern of their respective guide otherwise students will be responsible for any appropriate action.
- 7) Seminar Report should be typed/printed in double line space using A4 size bond papers with a left margin of 1.5” and right margin of 1.0” with proper spiral binding to be done.
- 8) Students are requested to obtained necessary certificates and declaration to be duly enclosed in the report.