

B Accredited By NAAC

SHIVAJI UNIVERSITY, KOLHAPUR.

Faculty of Commerce

Revised Syllabus of

Bachelor of Computer Application (BCA) Part – II (Sem - III & IV)

to be implemented from the academic year 2010-11 (i.e. from June 2010) onwards.

(Subject to the modifications will be made from time to time)

B.C.A. Part – II (Sem- III)

Paper No. 301: Software Engineering – I

Unit – 1: SYSTEM ANALYSIS:

Meaning And Definition Of System, Characteristics, Elements Of System, Types Of System, Subsystems, System Development Life Cycle, Feasibility Study: Social, Technical, Operational And Economic Feasibility, Role Of System Analyst And Users In System Development. USERS REQUIREMENT TECHNIQUES: Observation, Document Searching, Questionnaire, Interview. Charting Techniques: decision Table, Decision Tree.

Unit – 2: PROCESS DESIGN AND DATA DESIGN: 12

Design- Data Flow Diagram- Levels of DFD, Drawing DFD For Library System, Bank Transaction, Processing System, Entity Relationship Diagram- Concept Of Entity, Attributes, Types Of Relation, Drawing ERD For College System, Hospital system and Library System.

DETAILED DESIGN: Input Design, File Design, Dialogue Design, Process Design and Output Design

Unit – 3: SYSTEM IMPLEMENTATION:

System Implementation And Maintenance, Hardware And Software Selection.

Unit – 4: INTRODUCTION TO SOFTWARE ENGINEERING: 14

Definition, characteristics, components, applications, Process, methods and tools, Software Process, process models- incremental, waterfall, spiral.

References: 1) System Analysis and Design -Award E.H.

2) System analysis and design and introduction to Software Engineering Prof S Parthasarathy and Prof B W Khalkar
3)Integrated Approach to Software Engineering by Pankaj Jalote,
4)Software Engineering by James S. Peters and Witold Pedryczs

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Paper No. 302 : Object Oriented Programming With C++

Unit-I Fundamentals of Object Oriented Programming.

Basic concept of OOP, Benefits and features of OOP, Structure of C++ program, Managing input- output operations. Formatted outputs.

definition, syntax, data hiding, member functions- defining member Classfunctions inside and outside the class. Static data member, defining objects, array of objects.

Unit-II Constructor and Destructors

Constructor - definition, syntax, rules, types of constructors- default, parameterized ,copy , multiple constructors , concept of function overloading. destructor- definition, syntax, use and working, friend function, rules for defining a friend function common friend for two classes .

Unit-III Operator overloading and Inheritance

Operator overloading – definition, defining overloading function, rules, Overloading of unary operators, arithmetic operator. Inheritance – Meaning, types- single, multi level, multiple, hierarchical, Role

of protected data member, virtual base class, abstract class.

Unit-IV Polymorphism and Working with files.

Polymorphism- Meaning, compile time and run time, pointers to objects, Virtual functions, Rules for virtual function, Pure virtual function. File, Classes for file stream operations, opening and closing files, modes, file pointers, input-output operations – putw(). Getw(), put(), get(), read(), write().

References: -

- 1) C++ Programming D. Ravichandran
- 2) Programming with C++ E Balgurusamy
- 3) Mastering C++ by Venugopal
- 4)Object Oriented Programming using C++ by Joyce Farrell, Cengage Learning India Pvt. Ltd.
- 5)Object Oriented Programming using C++ second edition by Jibitesh Mishra & Muktikanta, Scitech Publications(India) Pvt.Ltd.
- 6)Object Oriented Programming in C++ by Dr. G.T. Thampi & Dr.S.S. Mantha.

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B.C.A. Part - II (Sem- III) Paper No. 303: Programming in Visual Basic

Unit – 1: INTRODUCTION TO VISUAL BASIC:

Concept of GUI, Difference between Procedure Oriented Programming and Event Driven Programming, events, properties and methods. Understanding VB IDE: Project Explorer, Properties Window, Toolbox, Form, Layout window, Code Window, Naming Conventions, Variables & Data Types: Byte, Boolean, Integer, Long, Single, Double, Currency, Decimal, Date, Object, String variable & fixed length, Variant with numbers and characters, Scope of variables-Global, Local, Static, Constants.

Unit – 2: CONTROLS AND MENU:

Label, Textbox, Command Button, Frame, Checkbox and Option button, List box and Combo box, Drive list box, Directory list box, File list box, Timer, Message Box, Input box, Common Dialog box controls, Formatting controls, Control Arrays, Tab order. MENU: Creating menus, selecting fonts from menu, Adding code to menus, Adding Shortcut keys to menu.

Unit – 3: CONTROL STATEMENTS & FUNCTIONS: 10

If----else, select case, Do Statements, For next, While, FUNCTIONS: functions and procedures, String, Mathematical, Date, Data type conversion functions with examples, Graphics functions: line, circle with examples

Unit – 4: LINKING WITH DATABASES & REPORTS: 14

Concept of record sets, DAO, Data form wizard, Add-Ins, Data control, Data grid control, DB-combo box, ADO, Data Report.

References: 1)H M Deital, PJ Deital, Visual Basic 6, Pearson publication

2) Mastering in VB 6.0 by Ivan Patrouses

- 3) Visual Basic 6 Complete BPB publication
- 4) Visual Basic 6.0 Black
- 5) Wagne Freeze, Visual Basic 6 Database Programming Bible

Paper No. 304: Marketing Management

Unit	Topics		Lecture
			Hours
Ι	A)	Marketing Management - Meaning & definition of Marketing	15
		Management Role of Marketing in an organisation, modern	
		marketing concepts, functions of marketing management marketing in 21 st century	
	B)	Marketing Environment - Micro & Macro environment of Marketing	
		analyzing need and trends in Marketing environment	
	C)	Marketing of Goods & services -classification of goods, Agricultural	
		& Industrial goods & their characteristics, Meaning & characteristics	
		of services Nature and Problems of service Marketing	
II	A)	Marketing mix- meaning of 7 P's of marketing mix product, price,	15
		place, promotion, people, process & physical Evidence.	-
	B)	Buyers Behavior - Meaning, Types of Buyers, factors affecting	
		Buyers Behavior, Buying Motives	
	C)	Salesmanship – Meaning and significance, Qualities of good	
		salesman, Duties & responsibilities of a good salesman personal	
		selling – objectives, theories of selling – AIDAS, selling process.	
III	A)	Managing the salesforce – Recruitment, selection, Training,	10
		compensation, motivation of sales force Evaluating the performance	
		of the sales force	-
	B)	Management of Advertising & Public Relations – Meaning,	
		definition, media selection, essentials of Advertisement, evaluating	
		Advertising effectiveness, C.R.M customers Relationship	
		Management.	
IV	A)	Marketing Research- Meaning, Definition, Scope and process of	4
		Marketing Research & Areas of Marketing Research	
	B)	E-Marketing- concept meaning, techniques, Significance of E-	4
		Marketing in Today's context.	

Reference Books -				
1	Philip Kotler-	Marketing Management, Prentice Hall of India Pvt.		
		Ltd, Delhi (10 th edition Sept, 2001)		
2	S.A. Sherlkar -	Marketing Management, Himalaya Publishing House,		
		Mumbai. (2000)		
3	Ravi Shankar-	Services Marketing – The Indian Perspective, Excel		
		Books (1998)		
4	S.M. Jha-	Service Marketing Himalaya Publishing House,		
		Mumbai. (1994)		
5	V.S. Ramaswamy & S.	Marketing Management Himalaya Publishing House,		
	Namakumari-	Mumbai.		

B.C.A. Part – II (Sem- III) Paper No. 305: Financial Services and Banking

UNIT-I FINANCIAL SERVICES: Meaning, Classification, Scop, Fund Based Activities and Non-Fund Based Activities, Recent Developments in Financial Services, Challenges in Financial Service Sector. (6)

UNIT-II HIRE PURCHAGE: Meaning, Characteristics, Parties to Hire Purchase Contract, Steps in Hire Purchase, Evaluation of borrower, Schemes of major financing companies-Auto finance and Financing of Consumer Durables, its features and comparative study. LEASING:Definition,Leasing and Hire Purchase, Steps in Leasing Tractions, Types of Lease-Financial Lease, Operating Lease and Leverage Lease,Adventages and Disadvantages of Lease, Problems of Leasing Service. (12)

UNIT-III VENTURE CAPITAL: Meaning, Features, Significance and need, Forms of VentureCapital, Stages of financing, Venture Capital in India, Problems of Venture Capital in India. INSURANCE SERVICES: Concept,Categories of insurance,Life Insurance-Major Life Insurance Policies and there Features, Introduction of General Insurance ,IRDA-functions,Introduction to LIC,GIC and Private Sector Insurance Companies.(12)

UNIT-IV BANKING: Concept, functions of Commercial Bank-Various types of accounts-Fixed Deposit Scheme, Current Account and Savings Account, Loans and Advances-Cash-Credit, Term Loan etc. Recent developments in Banking Sector-e-banking, online banking, telebanking, mobile-banking, anytime banking, anywhere banking. MERCHANT BANKING: Meaning, activities, classification of merchant bankers-responcibilities of merchant bankers. CREDIT-CARD: Meaning, terms of issue, types of credit cards, Parties to credit card, credit-card v/s debit card, benefits of credit-card-card holder, issuer and member establishment. (18)

REFERANCE BOOKS:

- 1. Financial Services--M.Y.Khan.
- 2. Finance Sense—Prasanna Chandra.
- 3. Marketing of Financial Services and Markets—V.A.Avadhani.
- 4. Modern Banking of India—O.P.Agarwal.
- 5. Indian Economy Ruddar Dutta and K.P.M.Sundaram.
- 6. Financial Markets and Services -E.Gordon and K.Natarajan

B.C.A. Part – II (Sem- III) Paper No.306: LAB Course - V

Lab course V is based on Paper No.-302 and 303 for 50 marks.

Nature of Practical Examination:

1) Practical question paper will be of 30 marks. 10 marks are reserved for Journal and 10 marks are reserved for the viva. Journal must be certified by HOD.

[Note: If journal is not certified, then students are not allowed for practical examination]

2) Duration of Practical Examination is three hours (one hour for documentation and two hours reserved for online implementation) and two questions from paper no 302 and 303 each will be asked for examination. Each question carries 15 marks. Students are asked to attempt any two questions.

3) Practical Examination is conducted by university appointed examiner panel.

List of Practicals :

A) Paper No 302: Object Oriented Programming with C++

1.Simple C++ program without classes – to test prime no, calculate factorial

2. Program Using classes - to find divisors of any number, sum of digits of any given number.

3. Define a class 'string' that could work as a user defined string type. Include constructor that will enable us to create an un initialized string.

string s1;

also to initialize an object with a string constant at a time of creation like.

string s2("SUKCPS");

Include a member function that adds two strings to make a third string.

Write a complete program to test your class for following tasks.

- 1. Create un initialized string object
- 2. Create object with string constant
- 3. Connect two strings
- 4. Display a designed string object

4. Define a class in c++ to create a payroll system of an organization assuming that the following information can be read from keyboard.

Empnumber Empname Deptcode

Designation

Basicpay

Add the member functions

To Construct the data base.

To Display Contents of a table

To Display Employee list who's basicpay > 5000

Write a complete program using Main() to test the above class

5. Write an OOP to define class time with data members Hours , Minutes and Seconds. Accept actual working time (H:M:S) and Overtime (H:M:S) and find out total working time (Actual working time + overtime)

Add suitable methods in class time to read, display and calculate total working time . Foe Ex. Actual working Time is 05:30:45

	00.00.10
Over time	03:35:25
Total Time is	09:06:10

- 6. Write an OOP to interchange values of two object of same class using friend function.
- 7. Write a program using function overloading feature to find volume of a cube , cylinder , and rectangular box.
- 8.. Write a program using concept of function overloading to find out power (A number "m" to a power "n"). Assume that "m" may be integer or float, but "n" is always integer. Write a main that gets the values of "m" and "n" from user to test the function overloading.
- 9. Create a class 'number' that contains one int data member, Overload all arithmetic operators so that they operate on the object of number. (Use friend functions in your program)
- 10 Write a program using c++ to implement concept of overloading of '+' operator.
- 11 Consider the following class network MAST TRAN (ROLLNO, NAME) (FACULTY, CLASS) INFO [ROLLNO, NAME, FACULTY, CLASS] Define above class network by adding suitable method

Define above class network by adding suitable methods to get and display detail information of a n students.

12 Wrire C++ program to create a disk file to store following information Emp NO,Emp name,Basic salary.

B) Paper No 303: Programming in Visual Basic

- 1. Program with simple calculation e.g. area and circumference of circle
- 2. Program with logic conversion e.g. conversion of seconds to hours, minutes and seconds
- 3. Calculate compound interest of given principal amount for given time period with given rate of interest. Use appropriate controls.
- 4. Find the factorial of a given number using loops.
- 5. Find the Fibonacci Series using procedures/functions.
- 6. Find the sum of digits of given number and reverse the same number.
- 7. Find the given string is palindrome or not.
- 8. Examples on Implementation of various controls in Visual Basic.
- 9. Design a standard calculator.
- 10. List box & combo box demonstration with differences in properties.
- 11. Connect your application to Ms-Access database using DAO and data control, ADODC.
- 12. Design Notepad application using menu editor.

B.C.A. Part – II (Sem- III) Paper No. 307: Mini Project

This paper is for 50 marks. In this paper, students in group of maximum four work on software project. The Project is concerned with papers studied in present and earlier semesters. At the end of the work, project report will be prepared with every aspect of software engineering is concerned. This project work is expected to follow all the professional guidelines for software development.

Project viva-voce examination will be conducted before theory examination by university appointed external examiner panel. The marks distribution for project viva-voce examination is as below:

1) Documentation 10 Marks

2) Online Presentation 10 Marks

3) Viva Voce 30 Marks

B.C.A. Part – II (Sem- IV) Paper No. 401: Operating System

Unit – 1: INTRODUCTION:

Definition of Operating system, History, Types of OS, concepts: processes, files, system calls, System structure- monolithic systems, layered, virtual machines, client-server model

Unit – 2: PROCESS MANAGEMENT:

Introduction to processes, process model, implementation of processes, Interprocess communication- race conditions, critical sections, mutual exclusion with Busy waiting, sleep and wakeup, semaphores, event counters, monitors, message passing. Process scheduling: Round Robin scheduling, priority scheduling, multiple queries, shortest Job First, Guaranteed scheduling, policy versus mechanism, two level scheduling.

Unit –3: MEMORY MANAGEMENT:

Fixed, Partitioned Memory management- allocation algorithms, swapping, paging, segmentation, virtual memory.

Unit – 4: FILE SYSTEMS AND DEADLOCKS:

File- naming, structure, types, access, attributes, operations, Directories- hierarchy, path names, operations and security. Deadlocks: Definition, resources, Ostrich Algorithm, Strategies- Ignore, detect, recover, prevent, avoid.

References:

 Operating Systems Desin and Implementation Andrew S Tanenbaum and Albert S Woodhull PHI Learning Pvt. Ltd.,
 Operating System by A God bole Tata Mcgraw-Hill Publishing

3)Operating System Concepts by Abraham Silberschatz, Peter Baer Galvin & Greg Galvin, Wiley India Pvt.Ltd.

4) Operating System by P Balkrishna Prasad, Scitech Publication

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B.C.A. Part – II (Sem- IV) Paper No. 402: RDBMS with Oracle

Unit – 1: RDBMS:

Concept of RDBMS, Difference between DBMS and RDBMS, Features of RDBMS, Introduction of Oracle, Role & responsibilities of DBA, RDBMS Terminology-Relation, Tuple, Cardinality, Attribute, Degree, Primary Key, Domain, Codd's Rules, Relational Model, , Functional Dependencies, Normal Forms, Boyce-Codd Normal Form.

Unit –2: INTRODUCTION TO SQL:

Features of SQL, Data types, Classification of SQL Commands. SQL table creation, Integrity Constraints, Insertion of Records, Select statement, Alter Commands, Drop Table, SQL Operators-relational, Logical, Like, Between, IN operator, Clauses-Order by, Group by, Where Clause, Having Clause.

SQL Functions- Arithmetic functions, Conversion Functions, Miscellaneous functions

Unit – 3: JOIN AND SUB QUERIES:

Join- Equi Join, Simple Two Table Join, Outer Joins, Self Join, Set operators. Sub queries, Multiple sub queries, Nesting of sub queries, sub queries in DML commands, Correlated queries, comparison operators. Indexes, Sequences. Views-Create View, Drop View and Advantages.

Unit – 4: INTRODUCTION TO PL/SQL:

SQL Difference between SQL and PL/SQL, Block definition Structure, Block Functions- % type, % Row type, % record type, IF ELSE statement, FOR loop, While loop, GOTO Statement. Functions- MAX, MIN, SORT, COUNT, AVERAGE. CONCEPT OF CURSORS AND TRIGGERS: Types- Implicit, Explicit open, Close cursor with examples. Introduction to Triggers-Block level, Field level triggers.

References:

Commercial Application Development using Developer2000 by Ivan Bayross.
 Structured Query Language by Osbome
 SQL by Scott Urman.
 SQL & PL/SQL Black Book for Oracle by Dr,P.S.Deshpande.
 Fundamentals of DBMS Mark L Gillenson

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B.C.A. Part – II (Sem- IV) Paper No. 403: E-Commerce & Web Designing

Unit – 1: E-COMMERCE:

Meaning, Objectives, challenges and opportunities, basic models of E-commerce: B2B, B2C, C2B, Electronic Data Interchange: Concept of EDI, requirements, benefits, comparison with trade cycle, components and applications of EDI. ELECTRONIC PAYMENT SYSTEM: Overview of electronic payment technology, prepaid, postpaid payment system, cyber cash, electronic cash, digital cash, electronic checks, online credit-based systems, consumer legal and business issues.

Unit – 2: ELECTRONIC COMMERCE AND BANKING: 12

Changing dynamics in the banking industry, home banking: history, implementation approaches, open verses closed models, management issues in online banking, online customer services and support, technology and marketing strategies. E-SECURITY: Security issues, security threats, access control, firewall and proxy services, digital signature, electronic document, cryptography- private key and public key.

Unit – 3: DESIGNING WEB PAGE:

Introduction, www, Architecture of World Wide Web, steps in web development, HTML, Advantages of HTML, Essential tags, Heading and formatting tags, Anchor tag, table tags, Inserting images, frames and frameset, form tag, Introduction to cascading style sheet (CSS), cross browser testing.

Unit – 4: INTRODUCTION TO CLIENT SIDE SCRIPTING AND SERVER SIDE SCRIPTING: 12

Introduction to Java script statements- keywords, data types, basic statement, control statements (if-else, looping) with examples, event handler, built-in function and validation. Introduction to server side scripting: ASP advantages, server setup for ASP, built in object in ASP, GET and POST methods, database handling, connections, record set object. Case Studies: College Website, Company website.

References:

- 1)) E Commerce A Managers Guide by Ravi Kalakota
- 2) E -commerce By Kennneth C Lauden and Carol Guercio Traver, Pearson Edn.
- 3) E-Commerce By C.S.V Murthy, Himalaya Publication
- 4) E- commerce Fundamentals and applications by Henry Chan, Raymond Lee, Tharan Dillon and Elizabeth Chang.
- 5) HTML Black Book by Steven Hoizner
- 6) ASP.Net 3.5 by Willam B Sandas, TMH Publication

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B.C.A. Part – II (Sem- IV) Paper No. 404: Entrepreneurship Development and Small Business Management

Unit	Topics		Lecture
			Hours
Ι	A)	Introduction to Entrepreneurship – Evolution of the concept of	18
		Entrepreneur, Entrepreneur v/s Intrapreneur, Entrepreneur v/s	
	Manager Attributes & characteristics of a successful		
	Entrepreneur		
	B) Entrepreneurship & Environmental factors- Economic, Social,		
		Cultural, Political, Legal, Demographic and effect of these	
	factors on Entrepreneurship		
	C) Entrepreneurship Development - Entrepreneurship		
		Development Programmes (E.D.P's) – Details of such	
		Programmes – Introduction to District Industrial Centre (D.I.C.)	
		Entrepreneurship Development Institute of India (E.D.I.I),	
		National Entrepreneurship Development Board (N.E.D.B.)	
II	A)	Small Scale Industry – Definition, Characteristics of S.S.I., Role	08
		of S.S.I. in Indian Economy.	
	B)	Entry into Entrepreneurship- Factors in deciding location and	
		ownership, steps in starting the small scale Industrial unit	
III	A)	Project Report – Format of Project Report – Economic,	10
		Technical & financial parts of Report. Prepare project Report for	
		starting computer institution, Internet café, Dairy, Printing Press	
		& Garment unit.	
	B) Problems of small scale Industries – Production, finance,		
		manpower, marketing, Technical etc. Effect of Globalization on	
		S.S.I in India	
IV A) Computeriza		Computerization & S.S.I. – Importance of computer for S.S.I. –	12
		Applications of computer in S.S.I. – Benefits of	
		computerization, E-Commerce & S.S.I.	
	B)	Successful Indian Entrepreneurs – Dhirubhai Ambani, Narayan	
		Murthy, Asım Premji, Brijmohan Munjal & Karsanbai Patel-	
		Early age, background, Landmarks in their career, what qualities	
		made them successful Entrepreneur	

Reference Books -			
1	Vasant Desai-	Management of small scale Industry, Himalaya	
		Publishing House, Mumbai.	
2	Gordan & Natrajan-	Entrepreneurship Development, Himalaya Publishing	
		House, Mumbai.	
3	J.P. Sharma -	small scale Industry Problems & prospects	
4	Vasant Desai-	Project Management & Entrepreneurship Himalaya	
		Publishing House, Mumbai.	
5	S. Khanka -	Entrepreneurship Development – S.Chand & company	
		Delhi.	
6	Vasant Desai-	Dynamics of Entrepreneurial Development &	
		Management - Himalaya Publishing House, Mumbai.	

Paper No. 405: Development of Human Skill

UNIT-I BASICS OF HUMAN SKILLS: Meaning, background, types of human skillsreading, writing. Learning, listening. Basic abilities-muscular, sensor, mental, social and conceptual. SELF DISCOVERY AND BEHAVIOR: Meaning, The self administering tests of some work related aspects-Understanding others-Goal Setting to overcome weakness-Edwin Lokes Goal Setting Theory-Learning-Meaning, How Learning Occurs?-Means of learningindividual behavior and process.(12)

UNIT-II HUMAN ATTITUDES AND VALUES: Attitude-meaning, definition, features, formation of attitudes, functions of Attitude. Values-meaning, definition, nature, elements and principles of values-The sources of values and value system-Five universal values-truth, righteous conduct, peace, love and non-violence. NEW SKILLS IN MANAGEMENT: Creative style-emotional intelligence-leadership skills, work style, sales competencies, sports mental skills, Stress Management- Impact of stress on employee health, forms of stress-reaction, causes and symptoms of stress, remedies to control stress.(12)

UNIT-III SKILLS DEVELOPMENT: Decision making skills-methods used to develop decision making skills-in basket, business games and case studies. Interpersonal Skills-methods used to develop interpersonal skills-role playing, sensitivity training. PERSONALITY: Meaning, nature, determinants of personality. (12)

UNIT-IV UTILISATION OF SKILLS: Meaning, Career development stages-Career stage model-basic career anchors, factors affecting career choices-Roles in career development. CAREER IN COMPUTER FIELD: Operator, Programmers, System Analyst, Project Manager, Consultant.(12)

REFERANCE BOOKS:

- 1. Modern Business VOL.III, Personal Management-A.C.Craft.
- 2. Education to Human Values-Tilak Raj Bhardwaj.
- 3. Personnel Management-Edwin Filppo.
- 4. Organizational Behaviour-Keith Davis.
- 5. Organizational Behaviour by Hunt and Osborn, Wiley India Publication

B.C.A. Part – II (Sem- IV) Paper No.406: LAB Course VI

Lab course VI is based on Paper No.-402 and 403 for 50 marks.

Nature of Practical Examination:

Practical question paper will be of 30 marks. 10 marks are reserved for Journal and 10 marks are reserved for the viva. Journal must be certified by HOD.

[Note: If journal is not certified, then students are not allowed for practical examination]

2) Duration of Practical Examination is three hours (one hour for documentation and two hours reserved for online implementation) and two questions from paper no 402 and 403 each will be asked for examination. Each question carries 15 marks. Students are asked to attempt any two questions.

3) Practical Examination is conducted by university appointed examiner panel.

List of Practicals:

A) Paper No. 402: RDBMS with Oracle

1) SQL Statement for Creation of table & Insertion of data.

- 2) SQL Query to UPDATE Table.
- 3) SQL Statements for ORACLE Functions.
- 4) SQL Statement by using SUB_QUERIES.
- 5) Creation of View.
- 6) SQL Statement for joining of two tables.
- 7) Examples on PL/SQL Block
- 8) Creation of Cursor.
- 8) Creation of Database Trigger.
- 9) Creation of Forms & Reports.
- 10) Creation of Menus.

B) Paper No. 403: E-Commerce & Web Designing

1)Design of webpage using different formatting tags.

- 2) Design and Develop web page to demonstrate of Hyperlink
- 3) Design and Develop web page to demonstrate of marquee tag
- 4)Create different frames by using frame & frameset tags.
- 5)Create Result sheet by using Table tag.
- 6) Design and Develop web page to demonstrate of style sheet

7) Design a form by using a form tag.

8)Design a Dynamic College/Company website

B.C.A. Part - II (Sem- III)

Paper No. 407: Mini Project

This paper is for 50 marks. In this paper, students in group of almost four work on software project. The Project is concerned with papers studied in present and earlier semesters. At the end of the work, project report will be prepared with every aspect of software engineering is concerned. This project work is expected to follow all the professional guidelines for software development.

Project viva-voce examination will be conducted before theory examination by university appointed examiner panel. The marks distribution for project viva-voce examination is as below:

Documentation 10 Marks
 Online Presentation 10 Marks
 Viva Voce 30 Marks

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