

B.COM (Vocational Course)

Scheme of Examinations & Syllabi

B.Com. Vocational Courses in (Computer Application) – A

B. Com I (Computer Application) – A

A 1.05 Computer Fundamentals-I -- 30 (P) 70 3 hours

A 1.06 Operating Systems and Business
Data Processing – I -- 30 (P) 70 3 hours

Practical of 30+30 marks will be held in 2nd semester

A 2.05 Computer Fundamentals – II -- 30 (P) 70 3 hours

A 2.06 Operating Systems and Business
Data Processing – II -- 30 (P) 70 3 hours

Practical covering the syllabi of 1st and 2nd semester 60+60 = 120 marks

B.COM (SECOND YEAR)

Vocational Course: Third Semester

Scheme of Examinations & Syllabi w.e.f. 2015-16

B. Com II (Computer Application) – A

A 3.05 Data Base Management System – I -- 30 (P) 70 3 hours

A 3.06 Structural Programming and Computer
Graphics – I -- 30 (P) 70 3 hours

B.Com II (Vocational Course) Fourth Semester:

B. Com II (Computer Application) – A

A 4.05 Data Base Management System – II -- 30 (P) 70 3 hours

A 4.06 Structural Programming and Computer
Graphics – II -- 30 (P) 70 3 hours

Practical covering the syllabi of 3rd and 4th semester 60+60 = 120 marks

B.COM (THIRD YEAR)

Vocational Course: Fifth Semester

Scheme of Examinations w.e.f. 2016-17

B. Com III (Computer Application) – A

A 5.05 Computer Aided Drafting & Advanced
Topics in Computers – I -- 30 (P) 70 3 hours

A 5.06 Essentials of E-Commerce -- 30 (P) 70 3 hours

Practical of 30+30 marks will be held in 6th semester

B. Com III (Computer Application) – A

A 6.05 Computer Aided Drafting & Advanced
Topics in Computers – II -- 30 (P) 70 3 hours

A 6.06 Information Technology in Business -- 30 (P) 70 3 hours

Practical covering the syllabi of 5th and 6th semester 60+60 = 120 marks

B. Com I (Computer Applications) (First Semester)
Vocational Course w.e.f session 2014-15
Paper A 1.05 Computer Fundamentals – I
(A)Theory

Max. Marks: 70

Practical: 30

Time: 3 hours

Note: The Examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry seven small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

Unit – 1

Introduction to Computers: Definition of Computer; Components of Computer, Characteristics of Computers; Limitation of Computer; Generation of Computers; Classification of Computers; Human being Vs. Computer; Difference between Computer and Calculator.

Application of Computers: Computers in Commerce, Marketing, Education, Weather Forecasting, Banking and Research etc., Hardware, firmware, Live-ware

Unit – 2

Input Devices: Mouse, Keyboard, Light Pen, Touch Screen, Track Ball, Joystick, MICR, OCR, OMR Scanners, Voice System and Web Camera. Output Devices: Hard Copy Devices; Line printer, Character printer, Chain printer, Dot- Matrix printer, Daisy-Wheel printer, Laser printer, Ink-jet printer; Plotters and Soft Copy Devices – Monitor, Screen Image Projector, Voice Response Systems.

Unit – 3

Memory and Mass Storage Devices: Concept of Memory; Types of Memory; Primary Memory – RAM and ROM; Secondary Memory – Hard Disk and Floppy Disk; Optical Disks – CD – ROM and WORM disks; Magnetic Tape and Cache Memory; Difference between Primary and Secondary Memory.

Unit – 4

Concept of data; Information and data processing; Need and Uses of Information; Characteristics of Information ; Levels of Information; Types of Data Processing System MS-Word: Fundamentals of MS-Word, Menus, Toolbars, Ruler, Scroll Bar, Creating, Editing, Saving, Working with Frames, Columns, Pictures, Tables and Macro, Mail merge

Practical (Examination will be held in 2nd semester)

Max. Marks: 30

MS - Word: Practical Knowledge of MS –Word.

Suggested Readings: (1) Introduction to Information Systems, ALEXIS LEON
(2) Computer Fundamentals & Its Business Applications, Dr. S. hand.

B. Com I (Computer Applications) (First Semester)(sunita)
Vocational Course w.e.f session 2014-15
Paper A 1.06 Operating Systems and Business Data Processing – I
(A)Theory

Max. Marks: 70

Practical 30

Time: 3 hours

Note: The Examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry seven small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

Unit – 1

Operating system Overview: Definition & Concept of an Operating System; Functions of an Operating System; Types of an O.S; O.S. as an Extended Machine and resource Manager.

Process Management Functions: Process Model, Hierarchies and Implementation; Multitasking, Multi programming and Multi-Threading, Long-term and Short-term Scheduler.

Unit – 2

Memory Management Functions: Memory Management of Single User O.S., Memory Mgt. Techniques: Memory Partition, Memory Swapping, Memory Paging; Virtual Memory.

File Management Functions; File Access Methods; File Types; File Operations; File Naming. File Protection and security.

Unit – 3

Unix Operating System: Overview of Unix Operating System; Unix Architecture; Features of Unix Operating System; User Management in Unix; Unix Command; Unix File Types; Naming Files.

Unit – 4

Components of O.S. with reference to DOS: Single User O.S., Task-Loader, Memory Mgt., File Mgt., Directory Structure DOS, Moving renaming copying, deleting and undeleting file under DOS.

Device Management Functions: Input / Output Device and Controllers; Interrupt Handlers; Disk Scheduling Techniques.

Practical (Examination will be held in 2nd semester)

Max. Marks: 30

(1) DOS commands, MS – Word: Basic Commands.

(2) MS – Excel: Functions, Preparing a Salary Statement, Result Sheet, MS – Excel: Basic Commands.

Suggested Readings: (1) Introduction to Information Systems, ALEXIS LEON

(2) Computer Fundamentals & Its Business Applications, Dr. S. Chand.

B. Com I (Computer Applications) (Second Semester) w.e.f session 2014-15
Vocational Course Paper A 2.05 Computer Fundamentals – II
(A) Theory

Time: 3 hours

Theory marks: 70

Practical: 30 Marks

Note: The Examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry seven small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

Unit – 1

Fundamental to Computers: Model of a digital Computer; Functioning of a digital Computer; Types of digital Computer; Advantages of a digital Computer; difference between Digital and Analog Computer Arithmetic and number systems, ASCII & EBCDEC character sets.

Unit – 2

Software concepts: Types of Software and their role, Relationship between Hardware and Software, Different system Software Types- Operating Systems, Translators, Systems, Translators, System Utilities – File Manger, Loader, Linker, Editor; Concept of Application Packages: Word-Processing, Spread-sheet Software, Database Software, Graphics Software and Entertainment software.

Unit – 3

Introduction to Windows: Evolution of Windows; Types of windows, Windows as an Operating System, Use of GUI in Window Explorer, Control Panel, Paintbrush Tools; Data Communication: Introduction of Data Communication; Modes of Data Transmission; Forms of Data Transmission, Data Transmission Speed, Communication Channels: Wire-cables, Fibre Optics, Microwave, Communication Satellites.

Unit – 4

Computer Networks: Need for Networking; Types of Computer Networks; Difference between LAN and WAN; Hardware of WAN; Internet and its Application: History of Internet, Application of Internet, ISDN Internet in India, Internet Basic Services; MS-Excel: Worksheet Overview: Rows, Columns, Cell, Menus, Creating Worksheet Opening and Saving Worksheets, Formatting, Printing, Table creating and printing graphs

(B) Practical (Examination will be held in 2nd semester)

Max. Marks: 30

MS-Excel: Practical Knowledge of MS – Excel

Suggested Readings: (1) Introduction to Essential Tools, Dr. Sushila Madan
(2) Database Mgt. Systems, Gerald V. Post, Tata McGraw Hill
(3) Introduction to Information Systems, Alexis Leon, Mathews
Leon

B. Com I (Computer Applications) (Second Semester)
Vocational Course w.e.f 2014-15
Paper A 2.06 Operation System and Business Data Processing – II
(A)Theory

Max. Marks : 70
Practical: 30

Time : 3 hours

Note: The Examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry seven small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

Unit – 1

Data Processing System: Data, Information and Data Processing; Need of Information; Data Storage Hierarchy; File Mgt. System- File Types; File Utilities: file sorting Utility, Searching, Merging, Copying, Printing and Maintenance Utility.

Unit – 2

Database Management System: Objectives of a Database System or Advantages of Database System; Components of a Database System; Disadvantages of Database System; Database Administrator (DBA); DBMS and its Functions; Main Components of DBMS-DDL, Query Language and Report Generator; Architecture of DBMS; Data Independence, various keys in DBMS- Primary key, Foreign key, candidate key, alternate key, super key

Unit – 3

Database Models: Hierarchical Model Network Model and Relational Model; Creating and Using a Database- Define its Structure, Designing Forms, Entering data; Viewing, Modifying, Deleting and Adding Records.

Unit – 4

Spreadsheet and its Business applications; features of Spread-Sheet; Creating a Workbook; Saving a Work-sheet, Creating a table and converting in graph, Built-in-functions; Business Application using MS-Access: Concept of Field, Records and files, Creation of Database, Reports; Sorting and Searching records, Designing queries and reports. Basic of data arrangement and access. Traditional file environment, identification of relevant data, evaluation of database technology. Databases: the Modern approach

(B) Practical (Examination will be held in 2nd semester)

Max. Marks: 30

MS-Access: Practical Knowledge of MS–Access Package

Suggested Readings: (1) Database Mgt. Systems, Gerald V. Post, Tata McGraw Hill

(2) Database Mgt. Systems, Aswani Kush

B.Com.II Vocational Course (Computer Application) w.e.f session 2015-16
IIIrd Semester

Paper: Data Base Management System-I

Code: A 3.05

Time: 3 Hours

Max Marks: 70

Practical: 30

Note: - The Examiner shall set nine questions in all covering the whole syllabus. Question No. 1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The Examiner will set two questions from unit out of which the candidate shall attempt four questions selecting one question from each unit. All the questions shall carry 14 marks each.

Unit-I

Introduction to Database System: Basic concepts and definitions, Data Dictionary, Database, DBMS, Operations performed on DBMS System, DBA, File Oriented System versus Database System, Database system Environment, Database Languages: DDL, DML, Data Control Language(DCL), Data Query Language(DQL), Transaction Control Language(TCL), Advantage and Disadvantage of DBMS, Basic concept of Files: File Types, File Organization Techniques.

Unit-II

Database System Architecture: Introduction, Schemas, Sub Schemas, Instances, Levels of Database Architecture. Data Independence, Structure, Components and Functions of DBMS, Data Models, Types of Database System(DBMS), Structure of Relational Database, Keys of Relations

Unit-III

Introduction to Database Design: Software Development Life Cycle (SDLC), Development Cost and Structure System Analysis and Design (SSAD), Database Development Life Cycle (DDLC), Database Design, Automated Design Tools, Normalization: Normal Forms: 1st, 2nd and 3rd NF, BCNF, 4NF and 5NF. Functional Dependency and Decomposition Techniques.

Unit-IV

Query Processing and Query Optimization: Techniques: - Transaction Processing and Concurrency Control Methods. Data Manipulation: Create, Modify, Insert, Delete and Update, Searching and Matching, Oracle Functions, Oracle Transactions(Revoke, Rollback, Commit statements)

Practical (Examination will be held in 4th semester)

Max marks: 30

Application Development Using 'Oracle and DBMS-III+'

Suggested Books: (1) Database Systems, S.K.Singh, and Pearson Education, Published by Dorling Kindersley.

(2) DBMS, Alexis Leon, Vikas Publication House,

B.Com II Vocational Course (Computer application) w.e.f session 2015-16

IIIrd Semester

Paper: Structural Programming & Computer Graphics- 1

Code: A 3.06

Time: 3 Hours

Max marks : 70

Practical : 30

Note: - The Examiner shall set nine questions in all covering the whole syllabus. Question No. 1 will be compulsory covering all the units and shall carry 7 small questions of three marks each. The rest of the eight questions will be set from all the four units. The Examiner will set two questions from unit out of which the candidate shall attempt four questions selecting one question from each unit. All the questions shall carry 14 marks each

Unit-I

Planning the Computer Programming: - Purpose of Program Planning, Methods of analyzing a program requirements, Representations of Algorithms, Flow Charts: Flowchart Symbols, Levels of Flowcharts, Flow Chart Rules, Advantage & Disadvantage of Flow Chart.

Unit-II

Introduction to 'C' language: Concept of structural programming, Basic Constructs of Structural Programming: Sequence, Selection, Repetition (Iteration), Advantage of 'C' Language, Data types, Constant, Variable, Keywords, Structure of 'C' program, arithmetic Operators, bitwise operators, conditional operators; IF statements, Switch statements, GoTo Statement

Unit-III

Computer Graphics: - Definition, Role of Graphics in various fields e.g.: (CAD) Computer Aided Design/Drafting Package, Animators, (DTP) Desktop Packages, Types of Graphics, Hardware & Software used in Graphics, Graphics Primitives, Application of Computer Graphics, Graphics Functions, Types of Printer using in DTP, Types of Graphics Card, Categories of Fonts, Style and Size.

Unit-IV

Arrays, single dimensional array, advantages of arrays, string of arrays, string functions (strrev,strupr, strcat, strcpy, strcmp) and programming of these functions without using direct functions

Practical (Examination will be held in 4th semester)

Max. Marks: 30

Development of a programming application using by 'C'

Preparation of a document & publishing it using by DTP Program

Suggested Books: Programming With ANSI and Turbo C, Ashok N. Kamthane, Pearson Education, published by Dorling Kindersley,

(2) Computer Graphics C Version, Pearson Edu, M.Pauline Bakaer

(3) Introduction to computer Graphics and Multimedia, Arup Chattopadhyay, Vikas Publication House.

B.Com.II Vocational Course w.e.f. session 2015-16 (Computer Application)

IVth Semester

Paper: Data Base Management System-II

Code:A 4.05

Time: 3 Hours

Max marks : 70

Practical : 30

Note: - The Examiner shall set nine questions in all covering the whole syllabus. Question No. 1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The Examiner will set two questions from unit out of which the candidate shall attempt four questions selecting one question from each unit. All the questions shall carry 14 marks each.

Unit-I

Data, Information, Data Processing, Database Terms, Database Technologies: Introduction, Internet Databases, Web Technology, Web Databases, Digital Libraries, Mobile Databases, Data Independence Concepts, Physical Data Organization: Introduction, Physical Storage Media, RAID (Redundant Arrays of Independent Disk) Technology, Advantage and Disadvantage of RAID Technology. E.R Model: - Basics of E.R Model, Conversion of E.R. Model into Relations.

Unit-II

Decision Support Systems (DSS): History of DSS, Characteristics of DSS, Benefits of DSS, Components of DSS, Operational Data versus DSS Data. Relationship: One-to-one, One-to-Many, Many-to-Many. Data Warehousing and Data Mining: Introduction, Main Components of Data Warehouses, Benefits and Limitations of Data Warehouse, Data Mining: Introduction, Data Mining Tools, Data Mining Application.

Unit-III

Advanced Database Models, Database Security: Types of Database Failures, Types of Database Recovery, Types of Database Security issue, Authorization and Authentication, Audit Trails, Firewalls, Data Encryption and Data Decryption(Data Cryptography).

Unit-IV

Database Operation in Microsoft Access: Creating Table, Creating forms, creating a Simple Query and Modifying a Query, Types of Query, subqueries, retrieval and deletion Microsoft Power Point: Introduction, Tools, Menus , slides, Animation

Practical (Examination will be held in 4th semester)

(Application Development using Visual Basic and MS Access)

Suggested Book :(1) Database Mgt. Systems: S.K.Singh, Office-14 Local Shopping Centre, Panchsheel Park, and New Delhi.

(2) DBMS, Alexis Leon, Vikas Publication House.

(3)Programming with Visual Basic, Pearson Education,

(4)Programming with Visual Basic, Vikas Publication House

B.Com.II Vocational Course w.e.f session 2015-16
(Computer Application)
IVth Semester
Structural Programming & Computer Graphics- II
Code:A 4.06

Time: 3 Hours

Max marks : 70
Practical : 30

Note: - The Examiner shall set nine questions in all covering the whole syllabus. Question No. 1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The Examiner will set two questions from unit out of which the candidate shall attempt four questions selecting one question from each unit. All the questions shall carry 14 marks each.

Unit- I

Introduction to 'C' Language: Introduction, Programming Rules, Executing the Program, Operators, Decision Statement, Loop Control Statement; Structure Programming: Advantages and disadvantages of Structured Programming. Scanf() and Printf().

Unit-II

Pointer: Declaration, Operations on Pointer, Array of Pointers to Arrays. Functions: Definition, Prototype, Passing parameters, Recursion. Data Structures: Array, Overview of Compilers and Interpreters, Program Development in C., difference between compiler and interpreter

Unit-III

Data handling formatted and unformatted console functions, difference between union and structures, nesting of structures, searching sequential and binary searching by array, difference between while , do while and for loop

Unit-IV

Computer Graphics: Computer Graphics Applications, Computer-Aided Design, Presentation Graphics, Computer Art, Entertainment, Education and Training, Visualization, Image Processing, Graphical User Interfaces, Display Devices, Overview of Display Method, Raster Scan Display Processing Unit, Input Devices for Interactive Graphics, Programmers Model of Interactive Graphics Systems, Storage Formats for Pictures.

Practical (Examination will be held in 4th semester)

Development of a Programming Application using by 'C'.

Preparation of a document & publishing it using by PageMaker

Suggested Books :

(1) Computer Graphics C Version, published by Dorling Kinderslay,
Pearson education, patparganj-482, F.I.E.

(2)Computer Graphics: Vikas Publication House

**B.Com - III(Vocational Course) – Vth Semester w.e.f session 2016-17
(Computer Application)**

Paper : A 5.05 Computer Aided Drafting & Advanced Topics in Computer-I

Time: 3 Hours

**Max marks : 70
Practical : 30**

Note: - The Examiner shall set nine questions in all covering the whole syllabus. Question No. 1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The Examiner will set two questions from unit out of which the candidate shall attempt four questions selecting one question from each unit. All the questions shall carry 14 marks each.

Unit – I

Introduction: CAD/CAM Defined, Product cycle and CAD/CAM, Automation and CAD/CAM. Computer Technology: Introduction, CPU, Types of memory, Input/Output, Data representation, Computer Programming Languages, Operating the computer System, Introduction to Mini computers, Micro computers and programmable controllers.

Unit – II

Computer- Aided Design: Fundamentals of CAD Introductions, Design Process, application of computers for design, Creating the manufacturing Data base, Benefits of Computer – Aided Design with examples, Hardware in Computer – Aided Design: Introduction, Design workstation, Graphics terminal, Operator input devices, Plotters and other output devices, CPU, secondary storage.

Unit – III

Computer Graphics Software and Data Base : Introduction software Configuration of a Graphics system, Functions of a Graphic Package, Exchange of CAD Data; Role of Multimedia;

Unit – IV

Data warehousing Components –Building a Data warehouse – Mapping the Data Warehouse to a Multiprocessor Architecture – DBMS Schemas for Decision Support – Data Extraction, Cleanup, and Transformation Tools –Metadata.

Practical (**Examination will be held in 6th semester**): **Max Marks 30**
Prepare a **practical** report on SQL queries

Books Suggested:

1. CAD/CAM, M.Grover & E-Zimmers Peason Education.
2. Peason Education.
3. Indroction to Computer Graphic and Multimedia, Anirbara
4. Ham & kambller

**B.com III - Vth Semester w.e.f session 2016-17
(Computer Application)**

Paper : A 5.06 : Essentials of E-Commerce

Time: 3 Hours

Max marks : 70

Practical : 30

Note:- The Examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All the questions shall carry 14 marks each.

Unit – I

Introduction of E-Commerce:- Definition, Main activities of E-Commerce Benefits of E-Commerce, E-Commerce Applications, E-Commerce systems, Advantages and disadvantages of E-Commerce, E-Commerce Technologies, Types of E-Commerce: B2B, B2C, C2B, B2G,G2C, Mobile commerce, E-Markets, Future of E-Commerce Introduction to Portals: Functions of Portals, Advantages of Portals, Market place for E-Commerce, E-Commerce Portals, Types of Portals.

Unit – II

Business to Business Electronic Commerce: Inter organization Transactions, Introduction to Electronic Market, Online Shopping, Online Purchasing, Models of Electronic Market, Markets Category, E-Business, B2B E-Commerce, B2B application, B2B Electronic Commerce requirements, Virtual Supply Technologies, Electronic Applications Categories, Electronic Tailing, E-Tailing in India, Auctions and the Emerging Electronic market place, Essential Elements of an Electronic Business, Differentiation in Catalogs for B2B as opposed to B2C, Instant Messaging, Electronic Data interchange (EDI): Definition, Benefits of EDI, Applications of EDI.

Unit –III

Business to Commerce electronic commerce: Definition, e-shop, Internet Shopping and the Trade cycle, Advantages and disadvantages of consumer e-Commerce.**Electronic Payment Systems:** Introduction, Traditional Payment Systems, Modern Payment system: PC Banking, Credit cards, Electronic Cheque, Micro payments, Smarts cards, E-cash, EFT.

Security Schemes: Encryptions, Digital Signatures, Security Certificates, Protocols used in Internet Security; Secure Socket Layer (SSL), Secure Hypertext Transfer Protocol (SHTTP), Secure Electronic Transaction (SET), e-Commerce, I.T.Act

Unit – IV

E-Banking/ Online Banking: Introduction, Advantages of Online Banking, issues in Internet Banking, Tools of Financial Banking, E-Banking Risks, e-Commerce and Internet: Definition, e-Commerce Technical components: Web resources, ISP, Cookies; Evolution of the Internet, Internet for Business, TCP/IP and OSI Model protocol, Broad Band Technology. Supply chain management; Definition, Different categories of supply chain, Functions of SCM, Benefits of SCM;

Practical (Examination will be held in 6th semester): Max Marks **30**

Books suggested

1. e-Commerce, CSV, Murthy, Himalaya Publishing House.
2. e-Commerce, Keunth. L. Landon, Pearson Education.
3. e-Commerce, Renu Gupta, Mahavir Publications

B.Com III (Vocational) Sixth Semester w.e.f session 2016-17
(Computer Application)
Paper: A 6.05 Computer Aided Drafting & Advanced Topics in Computer-II

Time: 3 Hours

Max marks : 70
Practical : 30

Note: The Examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry seven small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 14 marks each.

Unit – I

Computer Aided Design: Implementations of CAD, Features of CAD, Future of CAD, Artificial Intelligence (AI) for intelligent and manufacturing, Element of AI, Knowledge based Expert System, Machine Vision System, Neural Networks.

Unit II

Hardware & Software requirements of Auto CAD, Data Communication and networks; Data Encryption, Industrial Report; Definition and Robot history, Features of Robots, Application of Robots in Industry, Robot Programming Methods and Robot Programming Language.

Unit III

Multimedia: Definitions, Multimedia Components; Compact disk, Sounds, Image, Text, Hypertext, hypermedia, Animation, Morphing, Video, Virtual Reality, Virtual Reality Technology and Tools, Computer-Integrated manufacturing Systems.

Unit – IV

Computer Graphic: Applications of Computer Graphics, Display devices Basic Terms; Raster-Scan Display, Random Scan, Display, Direct View Storage Tube, Flat panel Display, Input Devices, hardcopy devices.

Practical (**Examination will be held in 6th semester**): Max Marks **30**

Prepare a **Practical** work report on Visual Basic programming & its tools.

Books Suggested:

1. CAD/CAM, M.Grover & E-Zimmers Pearson Education.
2. Pearson Education.
3. Introduction to Computer Graphic and Multimedia, Anirbara
4. Ham & kambller

**B.Com III (Vocational) Sixth Semester w.e.f session 2016-17
(Computer Application)**

Paper :A 6.06 Information Technology in Business

**Max. Marks: 70
Project Report: 20
Internal Marks: 10**

Time: 3 Hours

Note:- The Examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 7 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All the questions shall carry 14 marks each.

Unit-I:

Information Technology Basis: Introduction, Information, Information Technology (IT), Present Scenario, Role of Information Technology, introduction to Telecommunications, Computer Networks, Communication Systems, Internet and W.W.W. , E –Mail, Introduction to Intranets & Extranets.

Emerging trends in IT: Introduction, Electronic Commerce (E-Commerce), (EDI) Electronic Data Interchange, Mobile Communication, Bluetooth, Global positioning system, Imminent communication, Smart Card, Imminent Technologies.

UNIT-II

Types of Modern Data base Mgt. System,; Distributed data processing:- Introduction, Advantages and disadvantages of Distributed Systems Introductions to Multimedia: introduction, Multimedia Systems, Multimedia Authoring Tools, Types of Presentations, Multimedia in Marketing and educations, Introduction to virtual Reality;

UNIT-III

New Technologies in Introduction Technology: Introduction to Hypermedia, Artificial Intelligence and Business Intelligence, Knowledge Discovery in Data base (KDD), Data wise houses and Data Marts, Data Mining and on line Analytical Processing (OLAP), Enterprise Resource Planning (ERP); Introduction, reason for growth of ERP in Market Benefits of ERP, Supply Chain Management (SCM): evaluation of CRM, Element of Supply Chain, Customer Relationship Management (CRM) & Retailers, Advantage of SCM, Geographic Information System (GIS).

UNIT-IV

Computer in Business and Industry : Accounting Inf. System (AIS): Meaning, Characteristics, its Major Sub System, Management Information System: Meaning. Concept, Input & Output of MIS, Decision support System, Office Automation Systems, Executive Inf. System, Marketing Inf. System and Financial Information System

Mobile Computing and Business on the Internet: Mobile computing, Mobile Newspaper, Tele Communicating, Wireless Mobile Computing, Business on the Internet:- Electronic Catalogs, Web advertising, Secure transactions the Internet: - Electronic Catalogs , Web Advertising, Secure Transactions.

Practical (Examination will be held in 6th semester):

Max Marks 30

Working with Photoshop

Book Suggested:

1. Funda Mental of Introduction Technology, Alexis leon, Vikas publishing House Pvt LTD
2. Introduction to information Technology, ITL Education solutions limited, Pearson education.
3. Introduction to Information Systems, Alxis Leon, Vikas Publishing House PVT. LTD

