Computer Application Exam. 2016-17
B.A./B.Com./B.Sc.- (Part-I)
(Optional Paper)

Scheme: **Arts, Comm / Science**

		Min. Pass Marks	**Max. Marks**
		Theory: 47/54	Theory: 130/150
		Practical : 25/27	Practical : 70/75
Paper –I	3 hrs. Duration		65/75 Marks
Paper –II	3 hrs. Duration		65/75 Marks
Practical	4 hrs. Duration		70/75 Marks

Paper - I Introduction to Information Technology

Time : 3 Hrs. **Max. Marks: 75**

UNIT - I

Computer Basics: A Simple Model of a Computer, Characteristics of Computers, Problem-solving Using Computers, Algorithms.

Data Representation: Representation of Characters in Computers, Representation of Integers, Representation of Fractions, Hexadecimal Representation of Numbers, Decimal to Binary Conversion, Error-detecting codes.

Input & Output Devices: Description of Input Units, Other Input Methods, Output Units.

UNIT - II

Computer Memory: Memory Cell, Memory Organization, Read Only Memory, Serial Access Memory, Physical Devices Used to Construct Memories, Magnetic Hard Disk, floppy Disk Drives, Compact Disk, Read Only Memory, Magnetic Tape Drives.

Processor: Structure of Instructions, Description of a Processor, A Machine Language Program.

UNIT - III

Binary Arithmetic: Binary Addition, Binary Subtraction, Signed Numbers, Two's Complement Representation of Numbers, Addition/Subtraction of Numbers in 2's Complement Notation, Binary Multiplication, Binary Division, Floating Point Representation of Numbers, Arithmetic Operations with Normalized Floating Point Numbers.

Computer Architecture: Interconnection of Units, Processor to Memory communication, I/O to Processor Communication, Interrupt Structures, Multiprogramming, Processor Features, Virtual Memory.

UNIT-IV

Software Concepts: Types of Software, Software: Qualities & Attributes, Programming Languages: types and differences

Operating Systems: Definition, O.S. functions and O.S. types : brief introduction. A Brief History of: Linux, MS-DOS, Windows Operating System.

UNIT - V

Computer Generation & Classifications: First, Second, Third, Fourth and Fifth Generation, Classification of Computers, Concept of Distributed and Parallel Computers.

Internet: Network, World Wide Web, Uniform Resource Locator, Web Browsers, IP Address, Domain Name, Internet Service Providers, Introduction to Internet Security, Internet Requirements, Web Search Engine, Net Surfing, Internet Services, Intranet and Extranet, how to connect with Internet.

Text / Reference Books

1. "Computer fundamental", P.K.Sinha BPB Publications.

2. Fundamentals of Computers, V. Rajaraman, 3rd Edition, PHI Publications
3. Essentials of Computer & Network Technology, Nasib S. Gill, Khanna Publications.
4. Fundamentals of Information Technology, Deepak Bharihoke, Excel Books.
5. Information Technology by Reena Dadhich and R.C. Poonia, Vardhman Publications, 2009.

Paper - II PC Software Packages

Time: 3 Hrs. **Max. Marks: 75**

UNIT – I

DOS: Introduction, history & versions of DOS, DOS basics- Physical structure of disk, drive name, FAT, file & directory structure and naming rules, booting process, DOS system files, DOS commands: internal & external.

UNIT – II

Windows 95/98: Windows concepts, Features, Windows Structure, Desktop, Taskbar, Start Menu, My Computer, Recycle Bin, Windows Accessories: Calculator, Notepad, Paint, Word-pad, Character Map, Windows Explorer, Entertainment etc., Managing Hardware & Software-Installation of Hardware & Software, Using Scanner, System Tools, Communication, Sharing Information between programs.

UNIT – III

Word Processing; MS Word: Features, Creating, Saving and Opening Documents in Word, Interface, Toolbars, Ruler, Menus, Keyboard Shortcut, Editing, Previewing, Printing & Formatting a Document, Advanced Features of MS Word, Find & Replace, Using Thesaurus, Using Auto Multiple Functions, Mail Merge, Handling Graphics, Tables & Charts, Converting a word document into various formats like: Text, Rich Text format, Word perfect, HTML etc.

UNIT – IV

MS-Excel: Worksheet basics, creating worksheet, entering into worksheet, heading information, data, text, dates, alphanumeric values, saving & quitting worksheet, Opening and moving around in an existing worksheet, Toolbars and Menus, Keyboard shortcuts, Working with single and multiple workbook, working with formulae & cell referencing, Auto sum, Copying formulae, Absolute & relative addressing, Worksheet with ranges, formatting of worksheet, Previewing & Printing worksheet, Graphs and charts, Database, Creating and Using macros, Multiple worksheets- concepts, creating and using.

UNIT – V

Introduction to Power Point: Creating slide show with animations, Designing Presentations.
Introduction to Front Page and Microsoft Access: Creating & using databases in Access.

Text / Reference Books

1. Introduction to Computers by P.K. Sinha & Priti Sinha, BPB Publication, 1992.
2. Microsoft 2008 in 1 day by Joe Habraken, PHI
3. Window XP Complete Reference, BPB Publication.
4. IT Tools and Applications by A. Mansoor, Pragya Publications, Mathura.
5. DOS Quick Reference by Rajeev Mathur, Galgotia Publications.
6. Ms Office XP Computer, BPB Publications.

PRACTICAL

Practical will be based on Paper – II i.e. P C Software Packages

Computer Application Exam. 2015-16
B.A./B.Com./B.Sc.-(Part-II)
(Optional Paper)

Scheme: **Arts, Commerce/ Science**

		Min. Pass Marks	Max. Marks
		Theory: 47/54	Theory: 130/150
		Practical : 25/27	Practical : 70/75
Paper –I	3 hrs. Duration		65/75 Marks
Paper –II	3 hrs. Duration		65/75 Marks
Practical	4 hrs. Duration		70/75 Marks

Paper I : Database Management System

Duration-3 hrs. Max. Marks: 65(Arts/Comm.)/75(Science) Marks

Note: Total ten questions are to be set, taking two questions from each unit. Students are required to attempt five questions taking one question from each unit.

UNIT – 1

Categorisation of DBMS system: Network, Hierarchical and relational database, Application of DBMS systems.

Relational data base management systems: Why to use them and where, Data Description language, Data Manipulation Language and Data control Language.

UNIT – 2

Working with MS Access. Security consideration in database management systems, Performance improvement in database.

UNIT – 3

Relational database- advanced concepts, Introduction to ORACLE or a similar RDBMS on a multi user environment.

UNIT – 4

Introduction to Relation Algebra, Structured Query language, Form design through an advanced RDBMS, Report generator, query by example and Report by form, Accessing RDBMS using programming language, RDBMS menu, RDBMS network.

UNIT – 5

System management, User management, Security consideration.

Reading / Reference Books

1. An Introduction to Data Base System: Data C.J. Addison Wesley.
2. Database Management System Concepts :Henry F. Korth Abraham Silber Schatz, MC Graw Hill

Paper - II: Web Technology I

Time : 3 Hrs. **Max. Marks: 75**

Unit I

Introduction to Basics of Internet: Concepts of Internet : Domain, IP Addressing, Resolving Domain Names, Overview of TCP/IP and its Services, WWW.

Unit II

Designing Pages with HTML Introduction to HTML, Essential Tags, Deprecated Tags, Tags and Attributes, Text Styles and Text Arrangements, Text, Effects, Exposure to Various Tags (DIV, MARQUEE, NOBR, DFN, HR, LISTING, Comment, IMG), Color and Background of Web Pages, Lists and their Types, Attributes of Image Tag.

Unit III

Hypertext, Hyperlink and Hypermedia, Links, Anchors and URLs, concept of navigation, Different Section of a Page and Graphics, Footnote and e-Mailing, Creating Table, Frame, Form and Style Sheet.

Unit IV

DHTML Dynamic HTML, Document Object Model, Features of DHTML, CSSP (Cascading Style Sheet Positioning) and JSSS (Java Script assisted Style Sheet), Layers of Netscape, The ID Attribute, DHTML Events.

Unit V

Web Designing Tools: Front Page Basics , Web Terminologies, Phases of Planning and Building Web Sites, The FTP, HTTP and WPP, Features, Front Page Views, Adding Pictures, Backgrounds, Links, Relating Front Page to DHTML.

Text / Reference Books

1. HTML Black Book – Steven Holzner – Dreamtech Press.
2. HTML, Java Script, DHTML, PERL, CGI – Evan Bayross – BPB.
3. http:www.W3schools.com/html/
4. Dynamic HTML webMagic/ jet douyer-hayden Development group
5. The DHTML Company only Robert mudrey, PHI.

PRACTICAL

Practical will be based on theory Paper – I & II i.e. Database management system and web Technology.

Computer Application Exam 2016-17
B.A./B.Com./B.Sc.- (Part-III)
(Compulsory Paper)

Scheme: **Arts, Commerce / Science**

		Min. Pass Marks	**Max. Marks**
		Theory: 47/54	Theory: 130/150
		Practical : 25/27	Practical : 70/75
Paper –I	3 hrs. Duration		65/75 Marks
Paper –II	3 hrs. Duration		65/75 Marks
Practical	4 hrs. Duration		70/75 Marks

Paper I : Computer Graphics and Computer Aided Drafting

Duration-3 hrs. Max. Marks: 65(Arts/Comm.)/75(Science) Marks

Note: Total ten questions are to be set, taking two questions from each unit. Students are required to attempt five questions taking one question from each unit.

UNIT – 1

Importance of graphics, various types of graphics programs. Drafting packages, DTP packages, Microsoft windows. Various documentations cum DTP packages e.g. work perfect, Microsoft word etc.

UNIT – 2

Introduction to Page – Maker / ventura or similar packages, preparation of documents using DTP packages. Formating, printing various fonts and character set various types of printers.

UNIT – 3

Introduction to commercial DTP Systems available in market. Indian language fonts. Creation of Indian language fonts.

UNIT – 4

Microsoft Window session. Creating groups and program items under windows, tuning windows for a computer system. Preparation of a document and publishing it using a DTP system. Creation of fonts.

UNIT – 5

Introduction to AUTOCAD, Auto sketch and Auto Solid or a similar package. Advanced features of these packages. Drawing the plan of a building using AUTOCAD etc. Analysis features of AUTOCAD.

Reading / Reference Books

1. Computer Animation : Management Thalmann, Spriger Book Group: C
2. Mastering, C-Balon V,B.P.B. Publications
3. The Spirit of C, An Introduction to Modular Programming Coper, Jayco Books.
4. Learning Cad with Autocad Operating System: M.M.DAS. B.P.B. Publications
5. Mastering Autocad : George Omura, B.P.H. Publication

6. Applying Autocad : A Step by Step Approach: Wholers Lerry, McGraw Hill.
7. CAD/CAM Computer Aided Design and Manufacturing : Groover & Zimmers /Prentice Hall of India.

Paper II : Entrepreneurship Development Course, Project Report & Report of the Job training I & II (E.D.P.)

Duration-3 hrs. Max. Marks: 65(Arts/Comm.)/75(Science) Marks

Note: Total ten questions are to be set, taking two questions from each unit. Students are required to attempt five questions taking one question from each unit.

UNIT – 1

- Need, scope and characteristics of entrepreneurship. Special schemes for Technical Entrepreneur, STED
- Identification of opportunities
- Exposure to demand based, resource based, service based, import, substitute and export promotion industries
- Market Survey Technique.

UNIT – 2

- Need scope and approaches for project formulation
- Criteria for principles of product selection and development
- Structure of project report
- Choice of Technology plant and equipment
- Institutions, Financial procedure and financial incentives
- Financial ratios and their significance.

UNIT – 3

- Books of account, Financial statement and funds flow analysis
- Energy requirement and utilization
- Resource Management Man, Machine and Materials
- Critical Path method (CPM) and Project Evaluation and Review Techniques (PERT)as planning tools for establishing SSI.
- (a) Creativity and innovation
  (b) Problem solving approach
  (c) Strength weakness opportunity and threat (SWOT) Technique
- Techno-economic feasibility of the project
- Plan layout and process planning for the product
- Quality control/ quality assurance and testing of product

UNIT – 4

- Elements of marketing and sales management
- (a) Nature of product and market strategy
  (b) Strengths, weakneses opportunity and threats
  (c) After Sales Service
- Costing and pricing
- Management of self and understanding human behavior
- Sickness in small scale industries and their remedial measures

UNIT – 5

- Coping with uncertainties, stress management and positive reinforcement

- (a) Licensing, registration
  (b) Municipal bye laws and insurance coverage
- Imp. Provi. of Factory Act, Sales of goods Act, Partnership Act.
- (a) Dilution control
  (b) Social responsibility and business ethics
- Income Tax, Sales and Excise rules.

PRACTICAL 15 hrs. Teaching Load

1. Conduct of mini market survey (one day exercise) Data Collection through questionnaire and personal visits.
2. Entrepreneurial Motivation Training and exercise Practice. Through games, role Playing discussion.
3. (a) Working capital and fixed capital assessment and management Practice
   (b) Exercise on working capital and fixed capital calculation, Practices
4. (a) Analysis of sample project report.
   (b) Break even analysis Practice
5. Communication written and oral Practice

Suggested Reading Material :

1. Deshapande M.V. : Enterpreneursip of small scale industries; concept, growth & management . Deep & Deep publication, D-1/24, Rajouri Garden, New Delhi-110027.1984
2. Mc.Clealland DC: The achieving society. Prineton, N.J.D. Van Nostrand Co.N.Y., 1961
3. Meredith GG Newlson Retail: Practice of Entrepreneurship ILO, Geneva 1982
4. Pareek & Rao TV : Entrepreneurship Learning System, New Delhi-1978
5. Rao TV & Pareek : Developing Entrepreneurship –A Handbook
6. U.Vyas Jn.: Learning System. New Delhi-1982. Planning an industrial Unit I, neelkunj Neelkanth Park, Opp. Naranpura, Ahemedabad.
7. Welsh JA& Jerry FW : Entrepreneurs Master Planning Guide-How to launch a success full business. Prentice Hall, Englewook Cliffs, 1983.
8. Department of Industrial : Incentives &Concession for Setting Deptt.of Industrial Development Govt. of India, New Delhi.
9. India Investment: Guide for Entrepreneurs. India Investment Industrial Centre Centre, Jeevan Vihar Building Sansad Marg, New Delhi.
10. Entrepreneurship Development: A hand book for Institute of India Entrepreneurs. (with Special reference to S & T group).
    Entrepreneurship Development Institute of India.

Note : The candidate is required to submit project report to the supervisor and to the respective teaching incharge. Practicals based on design of layout of building, Design of interior of its rooms, Printing and plotting, the prepared drawings.

Distribution of Practical Marks:-

(A) For Science Students :-

a. 15 Marks exercise bases on paper VII & IX (for paper-I of Part-III computer applications)
b. 20 Marks-Project work carried out during B.Sc. pt.-III
c. 15 Marks- report on the job training I & II

(B) For Students of Arts and Commerce : where practical is of 70 marks the marks distribution will be as follows:

a. 20 Marks based on the exercise from paper VIII and XI.

b. 30 Marks related project work carried out by the candidate.

c. 20 Marks related to report on the Job Training I&II