ELEMENTARY COMPUTER APPLICATIONS
(Compulsory Paper)

(B.A./B.Sc./B.Com. Pt./Integrated B.Sc.-M.Sc. courses) Exam-2019-20

Scheme:

Exam Duration : 2 Hrs. **M.M.Pass Marks: 36** **Theory : 100**

Contact Hrs. : 3 hrs/week

Multiple Questions-100 and Q.P. of four series for theory. Each question shall carry 1 mark, with no negative marking. As such, 1 mark shall be awarded for the correct answer in each question.

Note:

1. The marks secured in this paper shall not be counted in awarding the division to a candidate.
2. The candidate has to clear compulsory paper in four chances.
3. Non appearing or absent in the examination of compulsory paper will be counted a chance.

Syllabus for compulsory paper of "Elementary Computer Applications"
(First year of B.A./B.Sc./B.Com./Intergrated B.Sc.-M.Sc. Courses)

1. **Introduction to Information Technology:** evolution and generation of computers, types of computers, micro, mini, mainframe and super computer, Architecture of a computer system: CPU, ALU, Memory (RAM, ROM families), cache memory, input/output devices, pointing devices. Development of Super Computers in India "PARAM": History, Characteristics, Strength, Weakness and basic Architecture.
2. **Number system:** (Binary, octal, decimal and hexadecimal) and their inter-conversions, character codes (ASCII, EBCDIC and Unicode). Logic gates. Boolean Algebra, machine, assembly and high level language including 3 GL and 4 GL.
3. **Concept of Operating system:** types of operating systems, need of OS, batch processing, multi-processing, Single user & Multi user OS, distributed and time sharing operating systems, Process and memory management concept, Introduction to Unix, Linux, Windows, Windows NT systems and their simple commands.
4. **Internet:** Concepts, email services, world wide web, web browsers, search engines. Exploring various Citizen-centric services of Govt. of India such as Income Tax Services, Passport Seva, Ticket Booking(IRCTC & RSRTC), National Voters Service Portal, LPG service.
5. **Word processing packages:** standard features like tool bar, word wrap, text formatting, paragraph formatting. Effects to text, Mail-merge.
6. **Presentation packages**: Slide creation, slide shows, adding graphics, formatting, customizing and printing custom and animation.
7. **Computer networking**: Type of networks, LAN, MAN and WAN, concept of bridges and routers, gateways and modems. ISDN and leased lines, Teleconferencing and videoconferencing.
8. **Multimedia Technology**: Introduction, framework for multimedia devices, image compression standards, JPEG, MPEG and MIDI formats.
9. **Database Management Systems:** Data, field and records, information database, creation of a database file, insertion, deletion and updating of records, modifying structure, editing and browsing of records, searching, sorting and indexing of records, retrieving of records and report generation. Data processing in government organizations.
10. **E-commerce**: Concept of e-commerce, benefits and growth of e-commerce, security considerations and hazards of virus and other security risks, anti-virus software, electronic payment system. E-Commerce: An Indian perspective, Digilocker, attendance.gov.in, mygov.in, Swachh Bharat Mission, E-Hospital, National Scholarship portal, E-Sampark, UID, various modes of Digital payment of govt. of India.

Note: The theory Q. P. will carry 100 multiple choice questions of 1 mark each. Question paper of four series shall be printed. Duration of Question Paper shall be of two hours.

Text/Reference Books:

1. Computer fundamentals by P.K. Sinha BPB publications.
2. Fundamentals of computers, V. Rajaraman, PHI Publication.
3. Fundamentals of Information Technology, Deepak Bharihoke, Excel books.