PAPER - 5
"INFORMATION TECHNOLOGY IN EDUCATION"

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Objectives :

1. Awareness of potentiality of information Technology.
2. Detailed knowledge of functioning of computers and internet.
3. Hands on experience of using computers and internet.
4. Design technology enhanced lesson plan using office automation package.
5. Skill in word processing , spreadsheet database, presentation applications, programming.
6. Knowledge of window based operating system.
7. Knowledge and application of educational software.
8. Understanding applications of it in school administration.
9. Practical knowledge based on word, excel, power point, access, HTML & window, explorer, etc. through performing experiments in computer laboratory.

Unit - I   Introduction to Computer Technology :

A. Computer meaning, development and use in education.
B. Parts of Computer - CPU (Central Processing unit), Processor, Memory & its types, Bus, Port & its type, Modem.
C. Computer peripherals
   i. Input devices - Keyboards, OCR, Barcode Reader ,Speech recognitions, Scanner, Mouse ,Joystick
   ii. Out-put devices, Display, Screens, Printers, types of printers , Laser, Inkjet, Thermal.
   iii. Special Purpose 1/0 devices, MICR, eared Scanner.
D. Meaning of binary system - bit & byte Languages - Higher Level and Cover Level, 05, multi taking, multi threading, Multi user, multi processor.
E. Application software : (MS-Office), Word, Excel, Access.

Unit – II   Information Technology in Education.

A. Meaning of IT, Scope of IT in education , classroom & IT.
   Local area Network - architecture, type of topology, internet, wide area Net work - Public network , internet, extranet, firewalls, Network, Protocols
B. Internet & WWW - History of internet access options for internet, types of cable - twisted & coaxial fiber optic cable. world wide web - URLs, E-mail ID, meaning of web page & website, Uses of internet in education, Various search engineer.

C. Introduction to simple function of HTML, meaning tags, characteristics of HTML tags, layout of HTML document.
D. Presentation Software full failure of a typical presentation package such as MS - power point.
E. Multi Media - applications of Multimedia in education & traking pixel - meaning, tools of multimedia paint & draw, 3D graphics, animation, sound and music, MIDI, Video CODEC Inter frame and intra frame compression, morphing multi media projector, kiosks.

Unit - III E- learning

A. E- learning - meaning concept, merits and demerits of e-learning
B. Synchronous and asynchronous learning - meaning, concept and differences between them.

C. Synchronous learning different modes of synchronous learning.
  - Instructor led instruction
  - Computer - Assisted - Instruction (CAI)
  - Computer - Managed - Instruction (CMI)
  - Virtual classroom
  - Tele-Conference (Internet mode)
  - Video Conference (Internet mode)
D. Asynchronous learning
     Different modes of asynchronous learning : Individualized intimation.
  1. Web - based - Training (WBT)
  2. Computer - based - Training (CBT)
  3. Computer - Assisted - learning (CAL)
  4. E-mail
  5. Surfing e-material on internet
  6. Internet based communities or forum like orcut.
       School automation package, Managing registers of office, Library management, Preparing school result, Salary bills.

PRACTICAL :-

It is mandatory to perform all the practical in the computer laboratory of the institution and each student will have to prepare a hand written journal along with print-out of the experiments attached to concerned experiment in journal and the same but duly certified by concerned teacher on each experiment with certificate from head of the institute will have to be presented before the examiner at the time of final practical examination.

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