

PAPER - 4

INFORMATION & COMMUNICATION TECHNOLOGY IN EDUCATION

Objectives :

Student teachers...

1. Obtain a total perspective map of role of Information and Communication Technology in present and future.
2. Know the development of IT in education & emerging role of teacher in IT.
3. Understand Communication process and its usage in teaching-learning.
4. Get awareness of Computer usage and its importance in Education.
5. Understand computer networks & use of Internet in Teaching.
6. Acquire understanding about teaching & learning.
7. Develop micro teaching skills & skills of teaching using ICT.
8. Create attitude and interest in ICT in Education subject.

UNIT-I

- A. Skill developing technologies, Characteristics of good teaching and Maxims of teaching .
Micro teaching – meaning, importance, limitation and organization patterns
- B. Micro teaching skills – set induction, skill of questioning, skill of explaining, skill of Black board work, skill of illustration, skill of using teaching aids, skill of reinforcement, skill of stimulation variation.

UNIT-II

- A. Educational technology – concept , need and functions of ET.
- B. Development of Educational Technology – transfer from teacher – centered – instruction to learner – centered – instruction in reference to following points
 - Material used before machines, print material, photography, recording, audio & video recording, television, computer, internet.

UNIT-III

- A. Emerging role of teacher in developed Educational technology
 - Presentation in direct teaching
 - As manager to manage teaching resources of ET
 - As user, facilitator and producer of teaching material based on ET
- B. Communication process-concept, nature, principles, functions, types of effective classroom communication
 - Obstacles in communication and teachers' attempts to overcome them

UNIT-IV

- A. Need and importance of computer in education
 - Need and relevance of information technology in modern world
 - Importance of knowledge of using computers by the teachers in classroom teaching

- Nature and scope of computer and IT
 - Use of computer and IT in education
- B. Computer Hardware :-
- C P U, input devices, memory
- C. Computer Software :-
- Operating software, computer languages, its uses
 - Differences between hardware and software technologies
 - Role of both the technologies in modern teaching systems

UNIT-V

- A. Computer networks-
- Types of networks, use of computer networks in communication, education, evaluation & research
- B. Internet – history, use in education, advantages, disadvantages, access options, ISP, MODEM, ISDN, search engines, net surfing and use of e-mail in education

UNIT-VI

- A. Teaching technology
- Use of strategies like teleconferencing, language laboratory – concept and importance, computer- assisted - instruction (CAI)
- B. Learning technology-
- Programmed learning – meaning, construction steps, types – linear and branching programmes, importance and limitations, synchronous and asynchronous learning, computer assisted learning (CAL)

UNIT-VII Practicum (Any Two)

1. Prepare presentation on grading system and marking system by visiting any two such institutions using data from both systems
2. Make a power point presentation on any one national issue
3. Prepare a question bank on any one subject of B. Ed. Syllabus
4. Visit an institute promoting information and communication technology
5. Create your e-mail ID and make correspondence with your friends through your e-mail.

Reference Books :

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4. J. Patel Et. Al, "A Hand-book for Programmed Learning, Centre of Advance Study in Education-CASE, Baroda.
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