MT-9 INFORMATION, COMMUNICATION AND TECHNOLOGY (ICT) EDUCATION

Unit – 1 INFORMATION & COMMUNICATION TECHNOLOGY SUBJECT AND ITS NATURE

1.1 Meaning & Nature of Information Technology

1.2 Place of Information Technology in School curriculum

1.3 Importance of Information Technology in daily life and in education

1.4 Correlation – Concept and Nature

1.5 Limitations of Information Technology.

Unit – 2 METHODS OF LEARNING AND TEACHING OF INFORMATION TECHNOLOGY

(BASIC, CONCEPT, ADVANTAGES, LIMITATION)

2.1 Computer assisted instruction

2.2 Project based learning

2.3 Technology aided learning

2.4 Demonstration

2.5 Online learning / Teaching

2.6 Offline learning / Teaching

2.7 Web based learning / Teaching

Unit – 3 CONTENT CUM METHODOLOGY IN TEACHING LEARNING OF ICI

3.1 Concept and nature of content cum Methodology

3.2 Importance and need of content cum Methodology

3.3 Step of Content cum Methodology

Unit – 4 PEDAGOGICAL ANALYSIS OF INFORMATION TECHNOLOGY

4.1 Structural component of Information Technology

4.2 Methods of curriculum construction in Information Technology Concentric, Linear, Eclectic

4.3 Objectives of teaching Information Technology

(a) General Objectives

(b) Objectives at Secondary and Higher Secondary levels

(c) Instructional Objectives of Information Technology

(d) 21st Century Skills

4.4 Analysis of Information Syllabus

4.5 Characteristics of good Information Technology text book

4.6 Content analysis of Information Technology

Unit – 5 CORE ELEMENTS AND VALUES IN TEACHING LEARNING OF INFORMATION TECHNOLOGY (As per Bihar State Syllabus)

5.1 Concept

5.2 Objectives

5.3 Application

Unit – 6 TOOLS IN INFORMATION TECHNOLOGY

6.1 Hardware Tools – Computers, Printers, OHP, Screen, Image, Projectors

6.2 Information Technology lab – Features, Problems, Maintenance.

6.3 Educational Software – Types, Characteristics, uses and evaluation

6.4 Communication tools – (uses) E-mail, chatting, Blogs, Wiki's, Newsgroups, Mobiles, Video conferencing.

Unit – 7 INFORMATION TECHNOLOGY AND NON FORMAL EDUCATION (ROLE AND IMPORTANCE)

7.1 Distance learning

7.2 Adult Education

7.3 Online tutoring

7.4 Guidance and Core selling

7.5 Health Education

Unit – 8 EVALUATION IN INFORMATION TECHNOLOGY

8.1 Types of evaluation – Formative and summative

8.2 Tools of evaluation of Power point presentation, Publications, Blogs, Wikis, Website.

8.3 Evaluation of Information Technology skills of students through oral written and practical test.

8.4 Online examinations – Importance, uses and limitations

REFERENCE BOOKS

1- Use of Computer and Multimedia in education – Srinivasan, T.M.
2- Principle and Practice of educational programming – Dasgupta, D.N.
3- Audio-Video methods of teaching – Dale, E.
4- Teaching of Computer Science – Singh, Y.K. & Nath, R.
5- Teaching in Computer Science in School – Binning and Binning.
6- Computer fundamental – Bansal, Arora.
7- ICT Strategies for School – Laxman, Mohenty.
8- ABC to Internet – Nand Kishore Dyne.