SEMESTER - IV

CPS 2d – Part IV - PEDAGOGY OF COMPUTER SCIENCE

Credits: 2 **Internal: 20 marks**

Hours/Week: Theory-2hrs & Practical-3hrs **External: 30 marks**

Total: 50 marks

Course Learning Outcomes:

At the end of the course, the student-teachers will be able to

- contrast learner-controlled instruction, collaborative and co-operative learning for effective curricular transaction;
- appreciate the curricular development in Computer Science;
- construct a system using the insight gained in Systems Approach;
- prepare a report on the organization of co-scholastic activities;
- construct modules in Computer Science;
- analyze and predict the utility of various websites related to Computer Science;
- prepare a report on the maintenance of records and registers in schools; and
- write a report on the environment context of their co-operative schools; and
- include field trips for enrichment of the teaching-learning process.

Unit I: Learner Controlled Instruction (LCI), Collaborative learning and Co-operative learning:

Need and Origin- meaning, nature and definition- Procedure or steps in LCI- advantages- Limitations. Collaborative learning in Computer Science : meaning – small group approach – buzz group technique- brain storming method- Reciprocal teaching. Co-operative learning: definition – basic assumptions and features- obstacles in introducing co-operative learning: obstacle from teachers, students and parents view -merits and demerits.

Unit II: Curricular development in Computer Science

Meaning of the term curriculum – Distinguishing curriculum from syllabus – principles of curriculum in computer science – Development of Computer Science curriculum – principles or approaches to the organization of Computer Science curriculum: Correlated Approach, Integrated Approach, Topical Approach, Concentric or Spiral Approach, Chronological and Sequential Approach – Evaluation of the existing Computer Science curriculum at the secondary stage.

Unit III: Systems Approach

Systems: Types of systems- Systems Approach- Steps involved in Systems Approach- Systems Approach to Education- Instructional Systems- Systems Approach to Instructional System.

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