

## 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**

#### Objectives

**At the end of the course the student teachers will be able to:**

- implement the knowledge of the learner controlled instruction, collaborative and co-operative learning effectively for better curriculum transaction;
- acquire knowledge on the curricular development in Computer Science;
- gain insight into systems approach.

#### **Unit I: Learner Controlled Instruction LCI, Collaborative learning and co-operative learning: (LCI)**

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.

#### **Suggested references:**

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- ❖ Sidhu, K. S. (2006). *Teaching of Mathematics*. New Delhi: Sterling Publishers Private Ltd.
- ❖ Singh, Y. K. (2009). *Teaching Practice*. New Delhi: APH Publishing Corporation.
- ❖ Srinivasan, T. M. (2002). *Use of computers and multimedia in education*. Jaipur: Aavisakar Publication.
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- ❖ இரத்தின சபாபதி. பி இரேணு பத்மா மோகன். (2008), வினாக்களில் விரிகல்கள், சென்னை:

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