SEMESTER - III

CPS 2c - Part III - 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-teacher will be able to:

- ➤ know the importance of various learning resources;
- > conduct action research and disseminate the results;
- > gain clarity on the various tasks to be executed during field immersion

Unit I: Learning Resources

Introduction – Need for planning a computer laboratory – Planning and maintenance of a computer laboratory – Special features of a computer laboratory – essential infrastructure – lab management – organization of practical's for pupils – maintenance of records – discipline rules in the laboratory for the teacher and laboratory staff – rules for the students in the laboratory – cybercrime – clubs – Computer Science Textbook : Meaning – Qualities of good Computer Science Textbook – use of text book in and outside the classroom – criteria for evaluation of Computer Science Textbook – value of the Computer Science Library.

Unit II: Action Research

Action Research- Meaning, need for classroom research- difference between action research and fundamental research- steps in action research- journaling the results of classroom research.

Unit III: Field Immersion

Tasks of student-teachers during internship:

- Observation of the teaching of mentor teachers and peer student-teachers
- Institutional and Individual case study,
- Lesson plan, Unit plan and teaching- learning materials,
- Question paper and other tools of assessment,

- Reflective diary of school internship,
- Co-Scholastic activities,
- Teaching as a substitute teacher

Suggested references:

- இரத்தின சபாபதி. பி இரேணு பத்மா மோகன். (2008), வினாக்களில் விரிகல்கள், சென்னை: சாந்தா பதிப்பகம்.
- 💠 இரத்தின சபாபதி, பி. (2008) கல்வியில் தேர்வு. சென்னை: சாந்தா பதிப்பகம்.
- ❖ Agarwal J. C. (2006). *Essential of Educational Technology: Teaching and learning*. New Delhi: Vikas Publishing House Pvt. Ltd.
- Alexis, M. L. (2001). *Computer for every one*. New Delhi: Vikas Publishing house Ltd.
- ❖ Allison, L. J., and Chris, P. (2007). *Preparing for blended e-learning*. UK: Routledge.
- ❖ Bennett, S., Marsh, D., & Killen, C., (2008). *Handbook of online education continuum*. New York: International Publishing group.
- ❖ Chauhan, S. S. (1985). *Innovations in teaching learning process*. New Delhi: Vikas Publishing house Ltd.
- 💠 கணபதி வி. இரத்தின சபாபதி. பி (2008) நுண்நிலை கற்பித்தல். சென்னை: . சாந்தா பதிப்பகம்.
- 💠 பாஸ்கரன். ப. ஷ. பத்மப்ரியா, (2007) கலைத்திட்ட வளர்ச்சி , சென்னை: சாரதா பதிப்பகம்
- ❖ Goel, H. K. (2005). *Teaching of Computer Science*. New Delhi: R.Lall Book Depot.
- ❖ Krishnamurthy, R. C. (2003). *Educational technology: Expanding our vision*. Delhi: Authors Press.
- ❖ Harley, H. (2007). *The internet: Complete reference*. New Delhi: Tata McGrow Hill Pub.co., Ltd.
- ❖ John, W. (2007). *Learning and teaching using ICT*. New Delhi: Learning Matters Ltd.
- ❖ Joyce, Well., (2004). *Models of teaching*. U.K: Prentice hall of India.
- ❖ Kochhar, S. K. (1992). *Methods and techniques of teaching*. New Delhi: Sterling Publishers Pvt Ltd.
- ❖ Kumar, K. L. (1997). Educational technology. New Delhi: Angel International (P) Ltd.
- ❖ Mohanty, L. (2006). *ICT strategies for schools*. New Delhi: Sage Publication.
- Norton, P. (1998). *Introduction to computers*. New Delhi: Tata McGraw Hill Publishing Co Ltd.
- ❖ Oosterhof, A. C. (1990). Classroom applications of educational measurement. Ohio:

- Merrill Publishing.
- ❖ Sambath, K., Paneerselvam, A., & Santhanam, S. (2006). *Introduction of educational technology*. New Delhi: Sterling Publishers Private Limited.
- ❖ Sharma, R. A. (2008). *Technological foundation of education*. Meerut: R.Lall Books. Depot
- ❖ Sharma, R. C. (1998). *Modern science teaching*. New Delhi: Dhanpat Raj and Sons.
- ❖ Sharma, R. N. (2008). *Principles and Techniques of Education*. Delhi: Surjeet Publications.
- ❖ 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.
- Stephen, M. A., & Stanely, R. (1985). Computer based instruction: Methods and development. New Jercy: Prentice Hall.
- ❖ Stone, E. (1996). How to use Microsoft access. California: Emergyville.
- 💠 விஜயலட்சுமி. வ (2007), நுண்ணிலை கற்பித்தல், சென்னை: சாரதா பதிப்பகம்.
- 💠 விஜயலட்சுமி, (2008), கற்பித்தலில் சிக்கல்கள்-தீர்வுகள். சென்னை: சாந்தா பதிப்பகம்.
- ❖ Vanaja, M. (2006). Educational technology. Hyderabad: Neelkamal Publications Pvt. Ltd.
