

THE OPEN UNIVERSITY OF SRI LANKA
DEGREE OF MASTER OF EDUCATION
FINAL EXAMINATION - 2010
ESP 2332 – COMPUTER TECHNOLOGY IN EDUCATION
DURATION : THREE (03) HOURS



DATE : 19th December 2010

TIME: 9.30 a.m. – 12.30 p.m.

ANSWER THREE (03) QUESTIONS ONLY.

01. i. Briefly explain four (04) reasons to justify the need to use technology in education. (40 marks)
- ii. Explain the following concepts with examples. (30 marks)
- a) Learning about technology
 - b) Learning from technology
 - c) Learning with technology
- iii. Describe using an example how technology can be used to support meaningful learning in students. (30 marks)
- (Total 100 marks)
02. Computer technology can be used in an instructivist approach as well as in a constructivist approach in the teaching-learning process.
- i. Compare and contrast the instructivist approach and the constructivist approach to learning, focusing on the following (30 marks)
- a. Student's role
 - b. Teacher's role
 - c. Role of technology
- (present your answer in a table)
- ii. Describe four (04) instances in which teachers can use computers as a tool to increase efficiency and productivity of their teaching. (40 marks)
- iii. State three (03) challenges faced by teachers when integrating computer technology in education and measures to overcome those. (30 marks)
- (Total =100 marks)

03. Teachers can function as designers and developers of computer-based learning materials.

- i. Briefly describe the five (05) key stages a teacher will undergo in the design and development process of computer-based learning materials.
(50 marks)
- ii. State three (03) competencies needed to be developed by teachers, in order to function in the above mentioned roles.
(30 marks)
- iii. Explain why a 'team approach' would be more appropriate in a computer based learning material development process rather than an 'individual approach'

(20 marks)

(Total = 100 marks)

04. Information and Communication Technology (ICT) increasingly supports Open and Distance Learning Systems(ODL)

- i. Explain how ICT can support an ODL system, under the following aspects
 - a. efficient course delivery
 - b. flexibility in learning
 - c. encouraging collaborative learning
(30 marks)
- ii. Describe three (03) features of a learning management system (LMS), that are useful for a teacher.
(30 marks)
- iii. Explain four (04) design aspects that are important to consider when a web-based learning environment is designed for distance learners.

(40 marks)

(Total = 100 marks)

05. i. Explain what is meant by the following terms.
- a. multiple media
 - b. multi media
 - c. interactive multimedia
- (30 marks)
- ii. Draw a concept map of a selected topic, on which you can develop an interactive multimedia learning material. Indicate the following in your concept map.
- a. main topic and sub topics of the subject matter content.
 - b. Specific learning experiences.
 - c. Multimedia integration (specific media components)
- (40 marks)
- iii. State three (03) strategies that can be used to enhance the interactivity of the above learning material.
- (30 marks)
(Total = 100 marks)
06. Write short notes on any three (03) of the following.
- i. World Wide Web (WWW) as a learning resources
 - ii. Application software and their uses in teaching.
 - iii. Strengths and limitations of using multimedia in education.
 - iv. Computers as knowledge construction tools.
 - v. Advantages of evaluating computer-based learning materials.
- (33 1/3 marks)
(Total = 100 marks)