



THE OPEN UNIVERSITY OF SRI LANKA

FACULTY OF EDUCATION

DEGREE OF MASTER OF EDUCATION

FINAL EXAMINATION – 2023/2024

STP9632 – COMPUTER TECHNOLOGY IN EDUCATION

DURATION – THREE (03) HOURS

Date: 21.08.2024

Time: 9.30 a.m. – 12.30 p.m.

**Answer any four (04) questions. You should not provide the same lesson as an example when answering different questions.**

01. “Social skills or Interpersonal skills, is the ability to interact with people through effective listening and communication”.
  - i. Explain with **three (03)** examples how computer technology can be used to develop social skills in junior secondary students. (30 marks)
  - ii. Describe **three (03)** advantages and **three (03)** disadvantages of using computer technology for social interactions among students. (30 marks)
  - iii. According to the definition provided by Karen Mossberger, digital citizens are “those who use the internet regularly and effectively”. Explain providing **two (02)** examples, the role of the teacher in promoting the digital citizenship concept among junior secondary students while assuring the safe and ethical use of computer technology. (40 marks)
  
02. “Interactive digital tools such as various educational applications and digital platforms can be integrated into teaching-learning processes, catering to diverse learning needs of students in the digital age”.
  - i. Explain **three (03)** characteristics of such a digital learning environment, and how they cater to diverse learning needs. (30 marks)
  - ii. “A constructivist approach to learning well-supports a technology-enhanced learning environment”. Justify this statement with **three (03)** appropriate examples. (30 marks)
  - iii. Discuss the changes required in the roles of the teachers and learners in a constructivist learning environment compared to the traditional teaching-learning environment. (40 marks)

03. “Teachers function as designers of effective, efficient, and engaging learning experiences”.
- i. Describe how you would consider the **four (04)** design aspects to create an effective, efficient, and an engaging learning experience of a selected lesson.  
(40 marks)
  - ii. Providing **three (03)** examples, explain how you have used free digital tools to develop the learning activities in the learning experience described in part (i)  
(30 marks)
  - iii. Examine the role of a systematic instructional design model that supported you to create technology-enhanced learning materials for the lesson described in part (i)  
(30 marks)
04. “Constructive alignment is a design for teaching in which what is intended students should learn and how they should express their learning is clearly stated before teaching takes place” (Biggs, 2014)
- i. Describe the ‘constructive alignment’ providing an example from a technology-enhanced learning experience implemented with your students in a selected lesson.  
(40 marks)
  - ii. Explain how ‘concept mapping’ helps as a tool when designing learning experiences.  
(30 marks)
  - iii. Explain with an example, the use of ‘First Principles of Instruction’ (Merrill, 2012) in designing learning experiences.  
(30 marks)
05. It has been shown that Open Educational Resources (OER) enhance student learning while breaking down barriers of affordability and accessibility to Education.
- i. Explain the 5Rs framework of OER, citing the Creative Commons license.  
(30 marks)
  - ii. Describe how ‘openness’ in education is assured through the concept of OER, citing **two (02)** examples.  
(40 marks)
  - iii. Explain **three (03)** practical difficulties encountered by you when using OERs in your teaching and learning process, and strategies adopted by you to minimize those.  
(30 marks)

06. Evaluation is “a disciplined inquiry to determine the work of things, where things may include programs, productions, procedures or objects”. (Kifer, 1997)
- i. Explain in brief **five (05)** aspects that should be generally included in an evaluation design of a technology-enhanced educational programme. (30 marks)
  - ii. Describe **three (03)** advantages of using a reflective journal to track the effectiveness of a technology-integrated intervention, as a component in its evaluation process. (30 marks)
  - iii. “A micro-credential is the record of the learning outcomes that a learner has acquired following a small volume of learning. Micro-credentials differ from traditional degrees and certificates in that they are generally offered in shorter or more flexible timespans and tend to be more narrowly focused”  
  
Explore the possibility of incorporating such a practice in the ICT subject of GCE (A/L) technology stream to evaluate the development of identified specific skills of students. (40 marks)

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