



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## UNIVERSITY EXAMINATIONS 2023/2024

THIRD YEAR, SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION ARTS, BACHELOR OF EDUCATION SCIENCE, BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION, BACHELOR OF EDUCATION TECHNOLOGY IN MECHANICAL ENGINEERING, BACHELOR OF EDUCATION TECHNOLOGY IN CIVIL ENGINEERING AND BACHELOR OF EDUCATION TECHNOLOGY IN ELECTRICAL AND ELECTRONIC ENGINEERING

### ECT 3370: E-LEARNING TECHNOLOGY IN EDUCATION

DATE: APRIL 2024

TIME: 2 HOURS

**INSTRUCTIONS: Answer Question ONE and any other TWO questions.**

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#### QUESTION ONE (30 MARKS)

- a) Education is geared towards equipping a learner with hands-on experience in their field of practice. Explain how an institution that offers Bachelor of Science in Medicine through a completely online-based study mode will ensure its students gain practical skills. (2 Marks)
- b) While giving examples, differentiate between the following terms:
- |                                 |          |
|---------------------------------|----------|
| i. Blended learning             | (1 Mark) |
| ii. Virtual learning            | (1 Mark) |
| iii. Learning management system | (1 Mark) |
| iv. Break-out room              | (1 Mark) |



MUST is ISO 9001:2015 and



ISO/IEC 27001:2013 CERTIFIED

- c) Online learning requires the instructor to first know about the learner. What details about the learners should an instructor know? (4 Marks)
- d) Explain in details what an instructor should do to promote student participation during a virtual class (4 Marks)
- e) Explain how examination proctoring software prevents students from cheating in an online exam (2 Marks)
- f) Online learning is of great benefit today. Explain the benefits of online learning (4 Marks)
- g) You are an instructor for online courses. Identify four physical mechanisms and media that can be used to store digital content (4 Marks)
- h) A completely fully online learning experience encompasses the ability to sit the final examination virtually. However, this has proven to be a challenge, and institutions have reverted to requiring students to sit their exams physically on campus. Explain these challenges (4 Marks)
- i) Briefly discuss two advantages of personalized learning (2 Marks)

### **QUESTION TWO (20 MARKS)**

- a) As a university student, clearly explain some of the advantages of attending your classes online? (10 Marks)
- b) Online learning has gradually gained popularity among institutions. Identify the tools that institutions and students each need to have in order to facilitate online learning. (4 Marks)
- c) What are the challenges that learners may face when engaging in online learning? (4 Marks)
- d) Differentiate between synchronous and asynchronous learning (2 Marks)

### **QUESTION THREE (20 MARKS)**

- a) Discuss reasons that would cause an institution to avoid offering online programs (10 . Marks)



- b) Explain in details the features a learning management system should have in order to effectively facilitate virtual learning (10 Marks)

**QUESTION FOUR (20 MARKS)**

- a) Describe two ways in which an instructor can make online learning content personalized (2 Marks)
- b) Discuss five roles that technology has played in the education sector (10 Marks)
- c) Online learning is a stimulant for improved professional development. While giving examples, discuss four ways in which online learning boosts professional development (8 Marks)

**QUESTION FIVE (20 MARKS)**

- a) Discuss the three theories that are discussed when referring to online learning (6 Marks)
- b) In details, expound on the SAMR model of online learning (8 Marks)
- c) Define the term OER (2 Marks)
- d) Identify four factors that would motivate a prospective student to enroll for online learning (4 Marks)

