



# 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

### CIT 3355: COMPUTER STUDIES SUBJECT METHODS

DATE: APRIL 2024

TIME: 2 HOURS

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

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#### QUESTION ONE (30 MARKS)

- a) What is the role of technology in modern teaching methods? Discuss how teachers can integrate technology into their instruction to enhance student learning outcomes. (4 Marks)
- b) Briefly describe best situations to determine when to use the following teaching methods.
  - i. Questions and answers Method (4 Marks)
  - ii. Class exercise (4 Marks)
  - iii. Demonstration (4 Marks)
- c) Identify four qualities of an computer studies effective teacher. (4 Marks)
- d) Briefly describe any three ways you would facilitate learners' motivation? (6 Marks)
- e) Identify any 4 precautions when students use computer laboratory. (4 Marks)



MUST is ISO 9001:2015 and



ISO/IEC 27001:2013 CERTIFIED

## QUESTION TWO (20 MARKS)

- a) Discuss the advantages and disadvantages of traditional lecture-based teaching compared to active learning strategies such as problem-based learning or inquiry-based learning. (6 Marks)
- b) Use an example to differentiate between active learning and Passive learning. (4 Marks)
- c) Differentiate between content knowledge and pedagogical knowledge. (4 Marks)
- d) Describe the components of the flipped classroom model and discuss its potential advantages and challenges for both teachers and students. (6 Marks)

## QUESTION THREE (20 MARKS)

- a) Describe the principles of differentiated instruction and provide examples of how it can be implemented in a diverse classroom setting. (6 Marks)
- b) Describe materials you will use for effective teaching of topic "type of network cables" indicating the importance of each material. (4 Marks)
- c) Compare competence Based Learning with the traditional learning giving an advantage in each case. (6 Marks)
- d) Briefly explain the meaning and importance of constructivism learning approach. (4 Marks)

## QUESTION FOUR (20 MARKS)

- a) Describe any 3 qualities of a well-organized chalkboard/ whiteboard. (6 Marks)
- b) Examine the following statements and determine whether they are primarily a knowledge area, skills area, or attitudes area. Justify. (4 Marks)
  - i. Students practice typing 40 words per minute.
  - ii. Students are asked to name input devices.
- c) Explain the concept of cooperative learning and discuss its benefits for student engagement and achievement. Provide specific strategies for implementing cooperative learning activities in various subject areas. (4 Marks)



- d) Explain the concept of inquiry-based learning and discuss its role in promoting critical thinking and problem-solving skills among students. Provide examples of inquiry-based activities that can be used in various topics in computer studies. (6 Marks)

**QUESTION FIVE (20 MARKS)**

- a) Compare and contrast direct instruction with discovery learning approaches. Discuss when each method might be most appropriate and provide examples of how they can be effectively used in teaching different subjects. (4 Marks)
- b) Use a diagram to illustrate any two computer laboratory layouts giving two advantages and two disadvantages for each layout. (6 Marks)
- c) Differentiate between extrinsic and intrinsic needs when motivating learners. (4 Marks)
- d) Reflect on your own teaching experiences and discuss how you have applied different teaching methods to meet the needs of diverse learners in your classroom. What strategies have been most effective, and what challenges have you encountered? (6 Marks)

