



MACHAKOS UNIVERSITY

University Examinations for 2024/2025 Academic Year

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL COMMUNICATION TECHNOLOGY & ECE

FIRST YEAR FIRST SEMESTER EXAMINATIONS FOR MASTER OF EDUCATION

ECT801: FOUNDATIONS OF EDUCATIONAL TECHNOLOGY AND INSTRUCTIONAL DESIGN IN EDUCATION

DATE: 18TH JANUARY, 2025

TIME: 1.00 PM – 4.00 PM

INSTRUCTIONS:

Answer question ONE (Compulsory) and any other Two questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain three benefits of the use of Educational Technology in the Classroom. (3 marks)
- b) Discuss the contribution of the following disciplines to instructional design: (6 marks)
- i) Philosophy. (6 marks)
 - ii) Psychology. (6 marks)
 - iii) Sociology. (6 marks)
- c) While the applications and benefits of instructional technology vary widely, all instructional technology shares on main purpose: to create engaging and effective learning experiences. Discuss three ways in which the above purpose may be achieved. (9 marks)

QUESTION TWO (20 MARKS)

According to Emanuel Kant, ‘‘KNOWLEDGE HIERACHICALLY DEVELOPS FROM: SENSES TO PERCEPTION TO CONCEPTS TO PRINCIPLES AND LAWS TO THEORY.’ How does this assertion apply to your subject area of specialization?

QUESTION THREE (20 MARKS)

Choose one of the following Instructional Design Models and illustrate how it is implemented with reference to your area of specialization.

- a) ADDIE model (Analysis, Design, Development, Implementation, and Evaluation)
- b) Bloom’s Revised Taxonomy
- c) Design thinking model
- d) Merrill’s principles of instruction
- e) Gagne’s nine events of instruction
- f) ARCS (Attention, Relevance, Confidence, Satisfaction) model

QUESTION FOUR (20 MARKS)

Explain the Mathematical, Experimental and the Theoretical components of investigative Disciplines.

QUESTION FIVE (20 MARKS)

Discuss the relationship between: *Education, Technology, and Learning*.