



# MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF SOCIAL SCIENCES

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

DIPLOMA IN INFORMATION SCIENCE (TVET)

SYSTEM ANALYSIS AND DESIGN

DATE: 4/6/2021

TIME: 11.30-2.30 PM

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## INSTRUCTIONS:

ANSWER ALL THE QUESTIONS

1. a) Describe the role of information systems to stakeholders. (10 marks)
- b) Highlights on two types of information systems. (10 marks)
2. a) Identify the five main components of a system. (10 marks)
- b) Classify the information systems below:
  - i. Open (2 marks)
  - ii. Closed (2 marks)
  - iii. Adaptive (2 marks)
  - iv. Probabilistic (2 marks)
- c) Define the term 'system'. (2 marks)
3. State five properties of a system. (10 marks)
4. Explain the system development lifecycle. (20 marks)
5. a) Formulate an information systems project with terms of reference. (10 marks)
- b) Identify five factors considered in project development of a system. (10 marks)