



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

Faculty of Engineering and Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

CERTIFICATE IN INFORMATION TECHNOLOGY (CIT 10A)

EIT 1106 : INFORMATION SYSTEMS II

END OF SEMESTER EXAMINATIONS

SERIES: AUGUST/SEPTEMBER 2011

TIME: 2 HOURS

Instructions to Candidates:

Answers **MUST** be written clearly within the answer booklets provided with the exam paper
Answer question **ONE (COMPULSORY)** and any other **TWO** questions from the list of questions below

This paper consists of **THREE** printed pages

SECTION A (30 MARKS) – Answer all Questions in this section

Question 1 (Compulsory)

- a) Define the following terms (5 marks)
- (i) Systems
 - (ii) Information system
 - (iii) System development
 - (iv) Software
 - (v) Hardware
- b) Explain what is meant by the following (5 marks)
- (i) Information security
 - (ii) Information privacy
 - (iii) Information accuracy
 - (iv) Accessibility
 - (v) Timeliness
- c) List any **FIVE** advantages of implementing information systems to any organization (5 marks)
- d) What core factors should any organization or person consider when purchasing/buying computer software and hardware? (5 marks)
- e) Explain in detail how information systems can be implemented in the following areas and the advantages to be achieved (5 marks)
- (i) National security
 - (ii) Healthcare management
 - (iii) Financial management
 - (iv) Agriculture
 - (v) Education
- f) Define what is meant by term ethics and how its applied in any organization (2 marks)
- g) List the types of information systems and their levels of operation (3 marks)

SECTION B

Question 2

- a) Define the term information systems (2 marks)
- b) Explain in detail the following types of information systems
- (i) Transaction Processing System (TPS) (2 marks)
 - (ii) Office Automation Systems (OAS) (2 marks)
 - (iii) Decision Support Systems (DSS) (2 marks)
 - (iv) Knowledge Based Systems (KWS) (2 marks)
 - (v) Management Information Systems (MIS) (2 marks)
- c) Differentiate between the following types of computers
- (i) Mainframe vs Supercomputers (2 marks)
 - (ii) Client-Server vs Minicomputers (2 marks)
 - (iii) Laptops vs Handheld Computers (2 marks)

d) Briefly explain the functions of a computer Anti-Virus and its importance (2 marks)

Question 3

- a) Briefly explain the importance of the following Information Systems Components
- (i) Hardware (2 marks)
 - (ii) Software (2 marks)
 - (iii) Information (2 marks)
 - (iv) People (2 marks)
 - (v) Telecommunication (2 marks)
- b) Define what is meant by computer related crimes and how this can be prevented from taking place in any organization (4 marks)
- c) List at least **FOUR** telecommunication devices likely to be found within an office setting (4 marks)
- d) What is identity theft? (2 marks)

Question 4

- a) Explain how one can protect their information systems from the following threats and by what means
- (i) Spamming
 - (ii) Computer hacking
 - (iii) Malware i.e. Viruses, worms, Trojans, logical time bombs etc
 - (iv) Identify theft
 - (v) Vandalism of equipment (10 marks)
- b) In detail, explain the functions of the following Information Systems listed below.
- (i) Decision Support Systems
 - (ii) Executive Information Systems
 - (iii) Transaction Support Systems
 - (iv) Management Information Systems
 - (v) Office Automation Systems (10 marks)

Question 5

- a) Differentiate between the following terms (4 marks)
- (i) Information Processing
 - (ii) Data Processing
- b) Name any **THREE** output devices (3 marks)
- c) Define what the terms ethics is and how organizations can apply them when it comes to information systems policies (5 marks)
- d) Explain how a Transaction Processing Systems (TPS) will assist the following people in performing their duties effectively and efficiently
- (i) Store Casheir
 - (ii) Bank Teller
 - (iii) Store Manager
 - (iv) Supervisor (8 marks)