

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF DIPLOMA
COMPUTER SCIENCE

COSC 0261: E-SYSTEMS

STREAMS: DIP. COMP. SCI

TIME: 2 HOURS

DAY/DATE: MONDAY 29/03/2021

8.30 A.M. – 10.30 A.M.

INSTRUCTIONS:

- Answer question ONE and TWO other questions
- Do not write anything on the question paper
- This is a closed book exam, No reference materials are allowed in the examination room
- There will be NO use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely.
- Marks are awarded for clear and concise answers.

QUESTION ONE (30 MARKS)

- Define the following terms as used in E-Systems
 - EDI (2 marks)
 - Encryption (2 marks)
 - Patents (2 marks)
- Differentiate between SEM and SEO (4 marks)
- List three platforms that a business can use to establish a digital presence (3 marks)
- List three advantages of E-commerce (3 marks)
- Name any three internet features on which the foundation of ecommerce is built (3 marks)
- Discuss the Tension Between Security and Other Values during the development of ecommerce sites (4 marks)
- List three examples of call-to-action features on an ecommerce website (3 marks)
- list any two programming languages used for website development (2 marks)
- list two types of electronic payment systems (2 marks)

SECTION B (ANSWER ANY TWO QUESTIONS)

QUESTION TWO (20 MARKS)

- a. Discuss the key infrastructures components that are needed to support EC applications (10 marks)
- b. Discuss the search query process as performed by a search engine (10 marks)

QUESTION TWO (20 MARKS)

- a. Discuss how the following tools can be used to enhance security on an e-commerce site (12 marks)
 - i) Firewalls
 - ii) IDS
 - iii) VPN
- b. Explain four factors that fuel the growth and development of electronic commerce. (8 marks)

QUESTION FOUR (20 MARKS)

- a. Discuss the following e commerce models
 - i. B2B (3 marks)
 - ii. C2B (3 marks)
 - iii. C2C (3 marks)
- b. Discuss the three entities that make up the WWW architecture (6 marks)
- c. Discuss the classification of computer networks according to geographical coverage (5 marks)

QUESTION FIVE

- a. Discuss the following concepts in relation to Intellectual Property Assets (12 marks)
 - i) Patents
 - ii) Trademarks
 - iii) Copy rights
 - iv) Franchise
- b. Explain four challenges facing implementation of electronic payment systems. (8 marks)