



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

(A Centre of Excellence)

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

**UNIVERSITY EXAMINATION FOR DEGREE IN BACHELOR OF BUSINESS
ADMINISTRATION**

BIT 2116: E-COMMERCE

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions in **TWO** sections **A & B**

Answer question **ONE (COMPULSORY)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed pages

SECTION A (COMPULSORY)

Question One (30 Marks)

CASE STUDY: How the State of Pennsylvania Sells Surplus Equipment.

For many years, the Pennsylvania Department of Transportation (DOT) used a traditional offline auction process. In a radio address on December 6, 2003, Governor Ed Rendell announced that the state would begin holding online auctions to sell its surplus heavy equipment. The old, live in person action system generated about \$5 million a year. Using the internet, the DOT expected at least a 20 percent increase in revenue.

The Commonwealth of Pennsylvania conducted its initial online sale of surplus DOT items in October 2003. The sale consisted of 77 items (including 37 dump trucks) onsite inspection was available twice during the 2 week bidding period. The online sale allowed the Commonwealth of

Pennsylvania to obtain an average price increase of 20 percent, while reducing labour costs related to holding a traditional on-site sale. On high-value specialty items (i.e., a bridge inspection crane and satellite van), results exceeded the estimated sale prices by over 200 percent. The auction was conducted by Asset-Auction.com. The results of the action are shown below:

- i) Total Sales: \$635,416.03
- ii) Half of the bidding activity occurred in the final 2 days.
- iii) Every lot received multiple bids
- iv) Overtime bidding occurred in 39 lots
- v) Over 200 bidders registered for the sale.
- vi) 174 bidders from 19 states and Mexico made about 1,500 bids in 5 days.
- vii) 47 different buyers participated.

The Commonwealth of Pennsylvania now sells surplus equipment and properties using both Asset-auctions.com and eBay.

- a) Identify the e-business model that has been adopted by DOT. **(2 marks)**
- b) What drivers led DOT to go online? **(2 marks)**
- c) Why did the state generate 20 percent more in revenues with the online auction? **(2 marks)**
- d) Unlike the traditional offline auction the online auction exposes the customers to some potential threats, explain these threats. **(6 marks)**
- e) Explain the different on-line advertising methods that could be used by DOT to popularize their website in order to increase their revenue. **(5 marks)**
- f) Identify the different ways in which DOT's customers could pay for their purchases. **(4 marks)**
- g) Why did DOT need an intermediary to conduct the auction? **(3 marks)**
- h) How would DOT match its products to individuals and their preferences? **(6 marks)**

SECTION B (Answer Any Two Questions)

Question Two (20 marks)

- a) Give short note to the following facilities explaining how they support electronic commerce. **(10 marks)**
 - i) Intranets
 - ii) Protocols
 - iii) Internet utility programs
 - iv) Hypertext markup language
 - v) Extranets
- b) Explain how the internet has developed noting the key milestone that contributed to the emergence of electronic commerce infrastructure. **(10 marks)**

Question Three (20 marks)

- a) Explain the following ecommerce networking concepts listing one advantage/disadvantage in each. **(10 marks)**
 - i) Peer to peer network
 - ii) Client server network
- b) Analyze the fibre optic and coaxial cables data transmission media as used in e-commerce items of the following. **(6 marks)**
 - i) Cost
 - ii) Band width capacity
 - iii) EMI

- c) Discuss the **TWO** most important measures of a web site's performance. **(4 marks)**

Question Four (20 marks)

- a) Explain why web sites use cookies. What problem do cookies solve? **(4 marks)**
b) List and explain **FOUR** objectives of information systems security. **(8 marks)**
c) Name any **THREE** costs involved in web hosting. **(3 marks)**
d) To safeguard Electronic facilities an organization should have a computer security policy a written statement describing the assets to be protected the procedures to be followed and the areas of responsibility list forum items that the policy statement should address. **(4 marks)**
e) List **ONE** disadvantage of using electronic cash over the traditional cash. **(1 mark)**

Question Five (20 marks)

- a) In what ways can the internet and the web improve logistics management? **(6 marks)**
b) Explain how an organization can protect the following electronic commerce facilities. **(6 marks)**
 i) Protecting the Client Computers
 ii) Electronic Commerce Channels
 iii) Ensuring transaction Integrity
c) Enumerate any four distinct methods to collect payments from customers using electronic cash. **(4 marks)**
d) Differentiate between the following approaches to holding electronic cash. **(4 marks)**