TUESDAY: 22 May 2018.

Answer any FIVE questions.

Time Allowed: 3 hours.

ALL questions carry equal marks.

QUESTION ONE
(a) Identify six uses of information communication technology (ICT) in hospitals. (6 marks)

(b) Citing an application of each in the context of the end user, distinguish between “information centre” and “help desk”. (6 marks)

(c) Explain the meaning of the following terms used in reference to a computer file:

(i) Hit rate. (2 marks)

(ii) Sort. (2 marks)

(iii) Append. (2 marks)

(iv) Seek. (2 marks)

(Total: 20 marks)

QUESTION TWO
(a) Explain the main function of the following:

(i) Memory card. (2 marks)

(ii) Sound card. (2 marks)

(iii) Television tuner card. (2 marks)

(b) Distinguish between the following types of software:

(i) “Closed source software” and “open source software”. (4 marks)

(ii) “Alpha software” and “beta software”. (4 marks)

(c) Describe the following characteristics of storage media:

(i) Mutability. (2 marks)

(ii) Addressability. (2 marks)

(iii) Volatility. (2 marks)

(Total: 20 marks)
QUESTION THREE
(a) (i) Explain the term “conditional formatting” as used in spreadsheets. (2 marks)
(ii) Highlight two benefits of electronic spreadsheets over manual worksheets. (2 marks)
(b) Technology used to make the processors of computers has evolved over time.

Required:
Distinguish between a “second generation” and an “third generation” computers on the basis of the technology used to make their processors. (6 marks)

(c) Discuss five types of operating systems. (10 marks)
(Total: 20 marks)

QUESTION FOUR
(a) Distinguish between “structured decisions” and “unstructured decisions” as used in information systems. (4 marks)

(b) Describe the following types of management information system (MIS) reports:

(i) Summary report. (2 marks)
(ii) Exception report. (2 marks)
(iii) Statutory/scheduled report. (2 marks)

(c) (i) Explain the term “turnkey systems”. (2 marks)
(ii) Summarise four advantages of turnkey systems. (8 marks)
(Total: 20 marks)

QUESTION FIVE
(a) Illustrate the following LAN topologies:

(i) Mesh. (2 marks)
(ii) Tree. (2 marks)
(iii) Star. (2 marks)

(b) Highlight six features of an accounting package. (6 marks)

(c) Describe four benefits of using wireless media in network connectivity. (8 marks)
(Total: 20 marks)

QUESTION SIX
(a) (i) Explain the term “data/information privacy”. (2 marks)
(ii) Highlight three internet-related computer technologies that might threaten data/information privacy. (3 marks)
(iii) Recommend three measures that could be used to protect data/information privacy. (3 marks)

(b) Describe six methods that could be used to prevent unauthorised access to information in a computer within a networked environment. (6 marks)

(c) Explain the following web-related terms:

(i) Web browser. (2 marks)
(ii) Hyperlink. (2 marks)
(iii) Hypertext document. (2 marks)
(Total: 20 marks)

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QUESTION SEVEN
(a) (i) Define the term "executive support system (ESS)". (2 marks)
(ii) Explain four internal factors that might drive the need for an ESS in an organisation. (8 marks)
(b) Describe the following internet business models:
   (i) Information broker. (2 marks)
   (ii) Transaction broker. (2 marks)
   (iii) Content provider. (2 marks)
(c) Explain how the following factors affect the processing power of a computer:
   (i) Data bus. (2 marks)
   (ii) RAM size. (2 marks)
(Total: 20 marks)