



kasneb

DICT LEVEL I

INTRODUCTION TO COMPUTING

MONDAY: 21 May 2018.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question.

QUESTION ONE

- (a) Explain the following terms as used in information communication technology:
- (i) Quad core processor. (1 mark)
  - (ii) 3 MB cache. (1 mark)
  - (iii) 1TB HDD. (1 mark)
  - (iv) 1366 x 768 screen resolution. (1 mark)
- (b) Discuss two ways in which information communication technology (ICT) could help to develop social businesses. (4 marks)
- (c) (i) Explain the term “phishing” as used in information communication technology. (2 marks)
- (ii) Analyse three methods used to protect computer resources against cyber attacks. (6 marks)
- (d) Outline four characteristics of fourth generation computers. (4 marks)
- (Total: 20 marks)**

QUESTION TWO

- (a) Analyse five types of errors that might occur during data processing. (5 marks)
- (b) Explain the function of each of the following micro-processor registers:
- (i) Program counter. (2 marks)
  - (ii) Instruction register. (2 marks)
- (c) Summarise six characteristics of a decision support system. (6 marks)
- (d) In the past two decades, the emergence of advanced personal computers, and work stations, globally connected area networks and data communication has enabled companies to downsize, that is, migrating their applications from mainframe computers to client/server environment.
- With reference to the above statement, examine five reasons for downsizing. (5 marks)
- (Total: 20 marks)**

QUESTION THREE

- (a) Explain the term “cryptocurrency” as used in information communication technology. (2 marks)
- (b) Citing an example in each case, distinguish between, “real time data processing” and “batch data processing”. (4 marks)

- (c) Analyse four factors that could contribute to the adoption of information systems in an organisation. (8 marks)
  - (d) Describe three human threats to information and system security. (6 marks)
- (Total: 20 marks)**

**QUESTION FOUR**

- (a) Prisca Moraa opened her office computer and noticed that files had file extensions.

**Required:**

Explain the types of computer files represented by each of the file extensions below:

- (i) MPEG. (1 mark)
  - (ii) JPEG. (1 mark)
  - (iii) GIF. (1 mark)
  - (iv) DOC.TXT. (1 mark)
- (b) Desktop virtualisation is gaining prominence in organisations today.  
With reference to the above statement, argue four cases in support of desktop virtualisation. (8 marks)
  - (c) Discuss four factors to consider when selecting computer software. (8 marks)
- (Total: 20 marks)**

**QUESTION FIVE**

- (a) Outline three limitations of the graphical user interface (GUI). (3 marks)
  - (b) Describe three functions of an uninterruptible power supply (UPS). (3 marks)
  - (c) One of the negative impacts of information communication technology (ICT) on society is technology addiction.  
Outline four indicators that one is addicted to computers or mobile devices. (4 marks)
  - (d) Summarise four benefits of an enterprise resource planning (ERP) system to an organisation. (4 marks)
  - (e) Analyse six components of an information system. (6 marks)
- (Total: 20 marks)**
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