



DICT LEVEL I

INTRODUCTION TO COMPUTING

MONDAY: 26 November 2018.

Time Allowed: 3 hours.

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

QUESTION ONE

- (a) (i) Explain the term “device driver”. (2 marks)
- (ii) Summarise two reasons why it is important to install device drivers when integrating hardware devices. (2 marks)
- (b) Citing four reasons, justify why a local supermarket might seek to automate its operations. (8 marks)
- (c) Describe four data collection methods that could be used by an organisation. (8 marks)
- (Total: 20 marks)**

QUESTION TWO

- (a) Distinguish between the following terms as used in computer systems:
- (i) “Workstation” and “server”. (4 marks)
- (ii) “Interrupt request” and “direct memory access”. (4 marks)
- (b) In an information communication technology (ICT) seminar, one of the facilitators noted that “unfortunately, some companies do not know where to start when it comes to addressing the common information technology (IT) security threats that exist”.
- Required:**
- (i) With reference to the above statement, analyse three steps that a company could take when addressing information technology security threats. (6 marks)
- (ii) Describe three consequences of information security threats to an organisation. (6 marks)
- (Total: 20 marks)**

QUESTION THREE

- (a) Citing an example in each case, distinguish between a “port” and a “slot”. (4 marks)
- (b) Discuss three reasons why companies are adapting the new trend referred to as “bring your own device (BYOD)”. (6 marks)
- (c) Touch screens have become a common method of capturing data especially with portable devices. Identify two advantages and two disadvantages of this method of input. (4 marks)
- (d) One of the components of an information system is feedback. Explain three reasons why feedback is important. (6 marks)
- (Total: 20 marks)**

QUESTION FOUR

- (a) Summarise four roles of an information technology operations manager. (4 marks)
- (b) Discuss two differences between “time sharing” and “real-time” operating system. (4 marks)
- (c) Analyse three principles of user interface design. (6 marks)
- (d) Explain the following types of computer buses:
 - (i) Data bus. (2 marks)
 - (ii) Address bus. (2 marks)
 - (iii) Control bus. (2 marks)

(Total: 20 marks)

QUESTION FIVE

- (a) Outline four limitations of the first generation computers. (4 marks)
- (b) Analyse three advantages of online data processing systems over offline data processing systems. (6 marks)
- (c) Examine four functions of the human resource management information system at the strategic level of management. (4 marks)
- (d) In an article that was printed in one of the local dailies, the author noted that, “ICT has impacted the society both positively and negatively over the last decade. Negative impact has been as a result of health and safety issues associated with the widespread use of computers and other ICT related devices”.

Required:

- (i) Describe three health related problems that might arise from use of computers. (3 marks)
- (ii) Propose three ways of mitigating the health related problems identified in (d) (i) above. (3 marks)

(Total: 20 marks)

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