



ATD LEVEL I

DCM LEVEL I

**INFORMATION COMMUNICATION TECHNOLOGY**

**TUESDAY: 24 November 2020.**

**Time Allowed: 3 hours.**

**Answer any FIVE questions.**

**ALL questions carry equal marks.**

**QUESTION ONE**

- (a) Describe four trends that have characterised the development of Information Communication Technology (ICT) infrastructure. (4 marks)
- (b) Explain the meaning of the following concepts of a computer file:
- (i) Hit rate. (2 marks)
  - (ii) Sort. (2 marks)
  - (iii) Append. (2 marks)
  - (iv) Seek. (2 marks)
- (c) (i) State two functions of primary memory in a computer system. (2 marks)
- (ii) Recommend with a reason the major memory design constraint that must be given due consideration by the computer designer. (2 marks)
- (d) Examine two performance metrics that could be applied by an organisation in assessing the investment in information technology (IT) infrastructure. (2 marks)
- (e) Recommend the suitable media for the following file access methods:
- (i) Random. (1 mark)
  - (ii) Direct. (1 mark)

**(Total: 20 marks)**

**QUESTION TWO**

- (a) (i) Explain the term point-and-draw devices. (2 marks)
- (ii) List four commonly used point-and-draw devices. (4 marks)
- (b) State four components of an operating system. (4 marks)
- (c) Outline four classifications of optical media. (4 marks)
- (d) Highlight six strategic uses of internet by a software industry. (6 marks)

**(Total: 20 marks)**



### QUESTION THREE

- (a) Propose four relevant information systems that supports the different levels of an organisation giving examples in each case. (8 marks)
- (b) State the electronic component used in the following computer generations:
- (i) First. (1 mark)
  - (ii) Second. (1 mark)
  - (iii) Third. (1 mark)
  - (iv) Fourth. (1 mark)
  - (v) Fifth. (1 mark)
- (c) Examine three measures that could be adopted by both software developers and client organisations to protect software from piracy. (3 marks)
- (d) Highlight four reasons for changing from manual to computerised systems. (4 marks)
- (Total: 20 marks)**

### QUESTION FOUR

- (a) State four business applications supported by a Desktop Publishing (DTP) package. (4 marks)
- (b) Citing two examples in each case, differentiate between “guided” and “unguided” data transmission media. (8 marks)
- (c) Describe three types of charts available in a spreadsheet program. (6 marks)
- (d) State two commonly used web browser in a web environment. (2 marks)
- (Total: 20 marks)**

### QUESTION FIVE

- (a) State four basic evaluation criteria for a flat panel monitor. (4 marks)
- (b) (i) Explain the term control as a component of a system. (2 marks)
- (ii) State two components in a computer system which influence its behaviour. (2 marks)
- (c) Examine three advantages and three disadvantages of electronic government. (6 marks)
- (d) Describe three hardware devices found in a local area network (LAN). (6 marks)
- (Total: 20 marks)**

### QUESTION SIX

- (a) Explain the term “clock speed” stating its unit of measure. (2 marks)
- (b) Besides operating system, explain giving an example in each, two other components of a system software. (4 marks)
- (c) (i) Outline five features of an accounting package. (5 marks)
- (ii) Explain three benefits of an accounting package. (3 marks)
- (iii) List three examples of accounting packages. (3 marks)
- (d) Examine three operations done on a file by an operating system. (3 marks)
- (Total: 20 marks)**



**QUESTION SEVEN**

- (a) Identify three types of a computer mouse. (3 marks)
  - (b) Categorise the following peripheral devices in terms of input, output and storage devices:  
Hard disk, sensor, speaker, flash memory, digital camera, bar code reader. (6 marks)
  - (c) Assess two positive and two negative impacts that information communication technology (ICT) has had on people. (4 marks)
  - (d) One of the biggest negative impacts of the internet is the “internet addiction disorder (IAD)”.
- Required:**
- (i) Explain the meaning of IAD. (2 marks)
  - (ii) Identify three symptoms of IAD. (3 marks)
- (e) List two limitations of computer files. (2 marks)

**(Total: 20 marks)**

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