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ATD LEVEL I

DCM LEVEL I

**INFORMATION COMMUNICATION TECHNOLOGY**

**TUESDAY: 21 May 2019.**

**Time Allowed: 3 hours.**

**Answer any FIVE questions.**

**ALL questions carry equal marks.**

**QUESTION ONE**

- (a) (i) Assess three negative impacts of e-waste on the environment. (3 marks)
- (ii) Highlight two remedies that could be employed to address the e-waste menace. (2 marks)
- (b) List three direct data entry (DDE) devices. (3 marks)
- (c) Describe three characteristics of a computer operating system. (3 marks)
- (d) Outline two activities that might be performed when updating a file. (2 marks)
- (e) Classify printers using the following criteria:
- (i) Speed. (2 marks)
- (ii) Characters printed per given time. (2 marks)
- (f) Highlight three factors considered when selecting an input device for a computer system. (3 marks)

**(Total: 20 marks)**

**QUESTION TWO**

- (a) Outline two features of an operating system in a computer. (2 marks)
- (b) (i) Examine three uses of a presentation software. (6 marks)
- (ii) State two examples of popular presentation software. (2 marks)
- (c) Compare a “local area network (LAN)” and a “wide area network (WAN)” based on the following:
- (i) Coverage. (2 marks)
- (ii) Form of data transmitted. (2 marks)
- (iii) Transmission speed. (2 marks)
- (d) Explain the following terms as used in social media:
- (i) Chat slang. (2 marks)
- (ii) Hash tag. (2 marks)

**(Total: 20 marks)**

### QUESTION THREE

- (a) Justify the use of a transaction file in an accounting department. (2 marks)
- (b) State four reasons why mobile phones are regarded as computers. (4 marks)
- (c) A data analyst intends to introduce an application software to make the analysis of data gathered by a sales man easy.

**Required:**

- (i) Examine five factors that could be used to select an appropriate software. (5 marks)
- (ii) Identify the most suitable application software for the above type of work. (1 mark)
- (d) Apart from a mouse, state two other input devices categorised as pointing devices. (2 marks)
- (e) Compare between read only memory (ROM) and random access memory (RAM) based on the following criteria:
- (i) Capacity. (2 marks)
- (ii) Read/write. (2 marks)
- (iii) Upgradability. (2 marks)

**(Total: 20 marks)**

### QUESTION FOUR

- (a) James bought a computer with the following specifications:

Processor – dual core 2.4GHz (i5 intel processor)

RAM – 16GB

Hard Drive – 256GB solid state hard drive

Monitor – 23" widescreen LCD with Display Port/HDMI

Operating system – Windows 10 Home edition

Backup Device – External hard drive and USB Flash Drive

**Required:**

Explain the following in the context of computer hardware:

- (i) 23" widescreen LCD. (1 mark)
- (ii) HDMI. (1 mark)
- (iii) Processor – dual core 2.4GHz. (1 mark)
- (iv) USB flash disk. (1 mark)
- (b) Outline four benefits of mobile computing. (4 marks)
- (c) In each case, highlight three characteristics of the following information systems:
- (i) Transaction processing system (TPS). (3 marks)
- (ii) Executive support system (ESS). (3 marks)
- (d) Justify the need of using hierarchical file structure in a computer. (2 marks)
- (e) Highlight four applications of computers in the banking sector. (4 marks)

**(Total: 20 marks)**

### QUESTION FIVE

- (a) Explain two benefits to an organisation of using Electronic Data Interchange (EDI). (4 marks)
- (b) In today's world, hacking of computerised systems is a reality.

**Required:**

Outline four safeguards you could take to protect your personal computer from hackers. (4 marks)

- (c) Explain the functions supported by the following internet services:
- (i) Newsgroups. (2 marks)
  - (ii) Telnet. (2 marks)
- (d) Differentiate between the following computer network terms:
- (i) "Coaxial cable" and "twisted wire pairs cable". (4 marks)
  - (ii) "Simplex mode" and "half-duplex mode". (4 marks)
- (Total: 20 marks)**

### QUESTION SIX

- (a) Explain the purpose of the following utility programs:
- (i) File compression utility. (2 marks)
  - (ii) Uninstall utilities. (2 marks)
  - (iii) Diagnostic utility. (2 marks)
- (b) Differentiate between "hard copy output" and "soft copy output". (2 marks)
- (c) Describe the following features of a spreadsheet:
- (i) Pivot table. (2 marks)
  - (ii) What if analysis. (2 marks)
  - (iii) Sorting. (2 marks)
  - (iv) Filtering. (2 marks)
- (d) Decision support systems (DSS) and management information systems (MIS) both serve the management level of an organisation.

**Required:**

Describe two major differences between DSS and MIS.

(4 marks)

**(Total: 20 marks)**

### QUESTION SEVEN

- (a) Citing an example in each case, describe the following types of information systems:
- (i) Enterprise information system. (2 marks)
  - (ii) Functional information system. (2 marks)
- (b) The internet has offered both benefits and challenges to businesses and their customers.
- Required:**
- (i) Describe two business activities which could be done on the internet. (2 marks)
  - (ii) Highlight three positive impacts of internet technology to the business sector in your country. (3 marks)
- (c) Explain the following types of systems:
- (i) Cybernetic system. (2 marks)
  - (ii) Soft system. (2 marks)
  - (iii) Hard system. (2 marks)
- (d) Identify three advantages and two disadvantages of a laser printer. (5 marks)

**(Total: 20 marks)**

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