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ATD LEVEL I

DCM LEVEL 1

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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