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ATD LEVEL 1

DCM LEVEL 1

INFORMATION COMMUNICATION TECHNOLOGY

TUESDAY: 27 November 2018.　　　　　　　　　　　　　　　**Time Allowed: 3 hours.**

Answer any FIVE questions.　　　　　　　　　　　　　　　**ALL questions carry equal marks.**

QUESTION ONE

(a)　Outline four advantages that might accrue to an organisation from the purchase of bespoke software.　(4 marks)

(b)　List five computer embedded devices that might be used in the home environment.　(5 marks)

(c)　State the five stages in the information technology infrastructure evolution.　(5 marks)

(d)　Analyse the purpose of the following software utilities:

　　(i)　System status utilities.　(2 marks)

　　(ii)　Debuggers.　(2 marks)

　　(iii)　Dump utilities.　(2 marks)
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　(Total: 20 marks)

QUESTION TWO

(a)　Describe two collision detection methods used in data transmission.　(4 marks)

(b)　List four desirable features of notebook personal computers.　(4 marks)

(c)　Contrast "optical character recognition" and "optical mark recognition" based on the following criteria:

　　(i)　Application area.　(2 marks)

　　(ii)　What is recognised.　(2 marks)

(d)　Distinguish between the following terms:

　　(i)　"CRT monitor" and "LCD monitor".　(4 marks)

　　(ii)　"Light pen" and "Joystick".　(4 marks)
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　(Total: 20 marks)

QUESTION THREE

(a)　Explain three reasons why a hotel might use M-commerce.　(3 marks)

(b)　With the aid of a diagram, illustrate the open systems interconnections model (OSI).　(7 marks)

(c)　(i)　Define the term "web browser".　(2 marks)

　　(ii)　State two commonly used web browsers.　(2 marks)

(d) Discuss the following e-payment methods:

   (i) Digital wallet. (2 marks)

   (ii) Smart card. (2 marks)

   (iii) Stored value payment system. (2 marks)
   (Total: 20 marks)

QUESTION FOUR

(a) Explain four reasons why images are used in the design of human computer interface (HCI). (4 marks)

(b) Identify two examples of each of the following basis of classification of operating systems:

   (i) The services they provide. (2 marks)

   (ii) The interface that makes them available to users and programs. (2 marks)

(c) Describe three documents created during mail merging in word processing. (6 marks)

(d) Discuss the following methods used in computer memory allocation:

   (i) Continuous allocation. (2 marks)

   (ii) Linked allocation. (2 marks)

   (iii) Indexed allocation. (2 marks)
   (Total: 20 marks)

QUESTION FIVE

(a) Highlight four problems that might occur if a software is not thoroughly tested before use. (4 marks)

(b) Explain four guidelines of setting up a strong computer password. (4 marks)

(c) Suggest four business processes that could be supported by spreadsheet software. (4 marks)

(d) (i) State four external sources of information for use in a decision support system. (4 marks)

   (ii) Outline four types of reports produced by a decision support system. (4 marks)
   (Total: 20 marks)

QUESTION SIX

(a) State five precautionary measures taken to protect a compact disc from damage. (5 marks)

(b) Identify five factors that you could consider when designing a method of file organisation. (5 marks)

(c) Analyse five factors that might determine the type of network topology to be used by an organisation. (5 marks)

(d) List five types of cybercrime. (5 marks)
   (Total: 20 marks)

QUESTION SEVEN

(a) State six basic types of desktop applications. (6 marks)

(b) With the aid of diagrams, illustrate three types of charts that might be used to analyse business trends in spreadsheets. (6 marks)

(c) Discuss four benefits that might accrue to banks from advancing loans through mobile phone platforms. (8 marks)
   (Total: 20 marks)

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