kasneb

DICT LEVEL II

COMPUTER SUPPORT AND MAINTENANCE

TUESDAY: 24 November 2020.   Time Allowed: 3 hours.
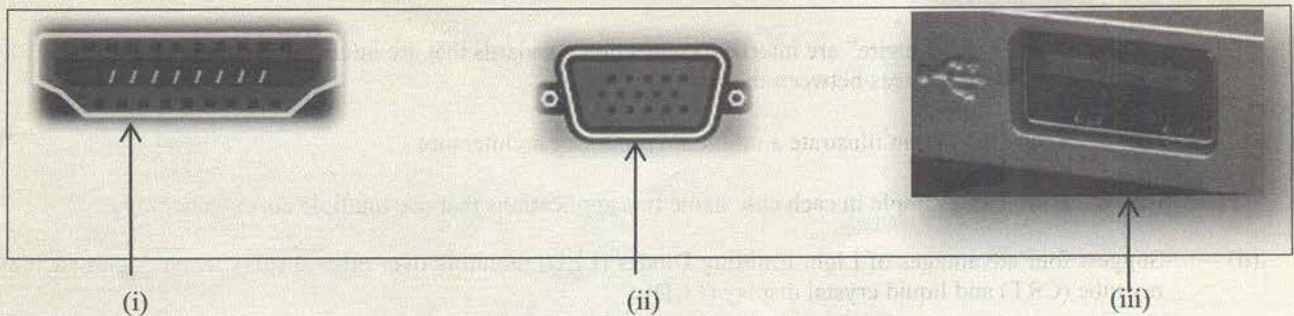
Answer ALL questions. Marks allocated to each question are shown at the end of the question.

QUESTION ONE
(a)   Describe each of the following computer terminologies:

         (i)   Application Program Interface (API).   (2 marks)

         (ii)   Autodetection.   (2 marks)

         (iii)   Bluetooth.   (2 marks)

(b)   Esther's computer hangs at odd times. When she turns it on, after 15 minutes the power goes off.

        Required:
        Advise Esther on four options available to her that she can apply to troubleshoot her system.   (4 marks)

(c)   Johnson Mwatela intends to upgrade his computer to a newer version of windows operating system. He could either
        use in-place upgrade or clean installation.

        Required:
        Examine three reasons why Johnson Mwatela would prefer in-place upgrade instead of clean installation.   (6 marks)

(d)   Identify two ways you could use to locate the hardware and software specifications installed in your computer.
                                                                                  (4 marks)
                                                                          (Total: 20 marks)

QUESTION TWO
(a)   Outline three methods that Doreen Motisha could use to adjust the date and time of a computer.   (3 marks)

(b)   Ben Sallat installed a computer program that he borrowed from his friend, but after one week he noted that his
        computer had been hacked.

        Required:
        (i)   Identify this type of attack.   (1 mark)

        (ii)   Explain two strategies that he could use as a remedy for the attack.   (4 marks)

(c)   The figure below shows various types of connection on a computer motherboard.

             (i)   (ii)   (iii)

Required:

Identify the ports labeled (i) to (iii). (3 marks)

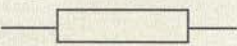(d) Analyse five common operations performed during software installation. (5 marks)
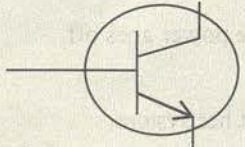
(e) Highlight four types of cards which when added to a computer motherboard enhances its capabilities. (4 marks)

(Total: 20 marks)

QUESTION THREE

(a) The table below displays symbols that represent various electronic components.

SYMBOL	ELECTRONIC COMPONENT
	Ground
	W
	X
	Y
	Z

Required:

State the electronic components represented by letters w, x, y and z. (4 marks)

(b) (i) Describe two benefits of connecting a computer via uninterruptible power supply (UPS) unit. (2 marks)

(ii) Summarise two factors to consider when buying an uninterruptible power supply (UPS) unit. (2 marks)

(c) Citing four reasons, justify the need of having regularly scheduled computer maintenance. (8 marks)

(d) Analyse four reasons why a computer may need a BIOS upgrade. (4 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Explain the following types of online Personal Computer (PC) support:

(i) Chat support. (2 marks)

(ii) Email support. (2 marks)

(b) "Thunderbolt" and "firewire" are interface connection standards that are intended for peripheral devices. Summarise two differences between the two devices. (4 marks)

(c) (i) Using a diagram illustrate a multicore processor architecture. (4 marks)

(ii) Citing an example in each case name two applications that use multiple cores technology. (4 marks)

(d) Suggest four advantages of Light Emitting Diodes (LED) monitors over other display technologies such as cathode ray tube (CRT) and liquid crystal display (LCD). (4 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Suggest two advantages and two disadvantages of buying a refurbished laptop. (4 marks)

(b) Describe the following CMOS settings:

    (i) System boot sequence. (1 marks)

    (ii) Plug and Play. (1 marks)

(c) Distinguish between low-level format and high-level format as used in disks. (4 marks)

(d) (i) Outline the two circumstances under which the main memory of a computer would be replaced. (2 marks)

    (ii) Outline four reasons why RAM is the easiest component to upgrade in a computer. (4 marks)

    (iii) Differentiate between DIMM and SIMM computer memory. (4 marks)

(Total: 20 marks)

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