

**DIPLOMA IN ENTREPRENEURSHIP AND
SKILL DEVELOPMENT**

Term-End Examination

00456

June, 2011

**BVEE-005 : COMPUTER HARDWARE AND
NETWORKING**

Time : 3 hours

Maximum Marks : 100

Note : *There are two sections in this paper. Section-I is of 40 marks and is compulsory. Section-II comprises of 4 questions of 20 marks each. You may attempt any 3 questions from Section II. There is no negative marking.*

SECTION - I (40 Marks)

1. Multiple choice questions. Write the correct answer :
- (a) Dot matrix printer creates characters by using : 2
- (i) Electrically charged ink
 - (ii) An ink pen
 - (iii) An inked ribbon and print head
 - (iv) Liquid
- (b) The minimum number of bits required to store the hexadecimal number is : 2
- (i) 2 (ii) 4 (iii) 8 (iv) 16
- (c) The amount of data that a disk may contain is known as : 2
- (i) Volume (ii) Size
 - (iii) Storage Capacity (iv) Speed

- (d) Which kind of access is provided by magnetic tape ? 2
- (i) Sequential access medium
 - (ii) Random access medium
 - (iii) A parallel access medium
 - (iv) None
- (e) Formatting a disk results in all the data being : 2
- (i) deleted from the disk
 - (ii) copied from the disk
 - (iii) saved to the disk
 - (iv) none
- (f) If a computer on the network shares resources for others to use, it is called : 2
- (i) Server
 - (ii) Client
 - (iii) Node
 - (iv) Work station
- (g) Which bus carries information between processors and peripherals ? 2
- (i) Data bus
 - (ii) Control bus
 - (iii) Address bus
 - (iv) All
- (h) Which topology is used for large networks ? 2
- (i) Bus
 - (ii) Star
 - (iii) Ring
 - (iv) Tree
- (i) Which part of the computer perform arithmetic calculations ? 2
- (i) ALU
 - (ii) Registers
 - (iii) Logic bus
 - (iv) Control unit

- (j) What maintains the status of the last operation carried out by the ALU ? 2
- (i) Accumulator
 - (ii) Instruction pointer
 - (iii) Status register
 - (iv) Program counter
2. What is meant by the following terms ? Explain them. 5
- (a) Input
 - (b) Output
 - (c) Storage
 - (d) Processing
3. Choose two output devices and compare them in respect to their speed, quality of output and cost. 5
4. What is meant by computer memory ? Explain each one briefly. 5
5. Draw a diagram of the three major parts of the Central Processing Unit (CPU) and briefly describe their function. 5

SECTION - II (60 Marks)

Attempt any three questions :

6. Differentiate between the followings : 20
- (a) Switch and Hub
 - (b) Repeater and Router
 - (c) TFT and CRT
 - (d) Bridge and Gateway
7. Explain the following topologies and its suitability in different scenario. Also suggest the transmission media and place, which is suitable for each of the topology. 20
- (a) Bus
 - (b) Star
 - (c) Ring
 - (d) Tree
8. Trouble - shoot the following. Also state the cause of the problem. 20
- (a) Disk boot failure.
 - (b) No display.
 - (c) Not able to use shared printer.
 - (d) Not able to use internet available on the network.
 - (e) Keyboard stops working after some time.

9. "CASH" bank located in Delhi has decided to expand its branches with ATM facility in all over Delhi. Twenty branches are identified in different locations which are spread over 80 kms. Every branch will have 5 customer desk nodes and 5 backend nodes with printer, scanner and backup facility. Main branch will have 10 customer desk node and 10 backend nodes with printer, scanner and backup facility. 20

- (a) What topology and communication channel is best suitable for branches to connect their nodes and why ?
 - (b) What kind of communication channel is suitable for connecting main branch with other branches and ATMs and why ?
 - (c) Suggest the placement of switch/Hub Repeater Modem and Router with justification.
 - (d) Suggest printers and backup system with justification.
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