



BRAINWARE UNIVERSITY

Course – B.Sc. (HN)

Computer Fundamentals and PCS (BHN101 / BHNC101)

(Semester – 1)

Time allotted: 3 Hours

Full Marks: 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Questions)

10 x 1 = 10

1. *Choose the correct alternative from the following*
 - (i) Software in computer _____

a. Enhance the capabilities of the hardware machine	b. Increase the speed of central processing unit
c. Both of these	d. None of these
 - (ii) What is the responsibility of the logical unit in the CPU of a computer?

a. To produce result	b. To compare numbers
c. To control flow of information	d. To do math's works
 - (iii) If in a computer, 16 bits are used to specify address in a RAM, the number of addresses will be _____

a. 216	b. 65,536
c. 64K	d. Any of the these
 - (iv) Instructions and memory address are represented by _____

a. Character code	b. Binary code
c. Binary word	d. Parity bit
 - (v) People often call _____ as the brain of computer system.

a. Control Unit	b. Arithmetic Logic Unit
c. Central Processing Unit	d. Storage Unit
 - (vi) Which is used for manufacturing chips?

a. Bus	b. Control unit
c. Semiconductors	d. a and b only

- (vii) Which generation of computer is still under development
- | | |
|----------------------|-----------------------|
| a. Fourth Generation | b. Fifth Generation |
| c. Sixth Generation | d. Seventh Generation |
- (viii) Which was the most popular first generation computer?
- | | |
|-------------|-------------|
| a. IBM 1650 | b. IBM 360 |
| c. IBM 1130 | d. IBM 2700 |
- (ix) Which is considered a direct entry input device?
- | | |
|--------------------|------------------------|
| a. Optical scanner | b. Mouse and digitizer |
| c. Light pen | d. All of the these |
- (x) A set of information that defines the status of resource allocated to a process is _____
- | | |
|--------------------|------------------------|
| a. Process control | b. ALU |
| c. Register Unit | d. Process description |

Group – B

(Short Answer Type Questions)

3 x 5 = 15

Answer any *three* from the following

2. Convert the following numbers using number system conversion

(a) $(23872)_{10} = (?)_2$	[2]
(b) $(1001100110011110)_2 = (?)_8$	[3]
3. Write down difference between OSI and TCP/IP model. [5]
4. Write down the basic elements of windows. [5]
5. Explain the various component of DIR command in DOS. [5]
6. Write down the relation between internal schema, external schema and conceptual schema. [5]

Group – C

(Long Answer Type Questions)

3 x 15 = 45

Answer any *three* from the following

7. (a) What is the relation between Hardware and software? [5]
 (b) What is PCB? Describe with proper diagram. [8]
 (c) Write the difference between concurrent and parallel execution [2]
8. (a) Explain “Memory Hierarchy” with a proper diagram. [10]
 (b) What is the difference between SRAM and DRAM. [5]
9. (a) Write down the different classes of IP address in respect of IPv4. [6]
 (b) What is the difference between net id and host id? [3]
 (c) What is subnet mask? Explain with the proper example. [3]
 (d) What is the difference between half duplex and full duplex method. [3]

10. (a) What is entity? [2]
(b) What is Attribute? Write down the difference between simple and composite attribute. What is derive attribute? [1+3+2]
(c) What is foreign key? Explain with proper example. [4]
(d) What types of symbol are used to represent attribute, entity and relationship in E-R diagram? [3]
11. Write short notes on any three of the following. [3x5]
(a) Network Device
(b) Types of Operating System
(c) Input Devices
(d) Generation of Computers
(e) Security of windows