



BRAINWARE UNIVERSITY

Course – B.Sc.(HN)

Basic Hardware and Operating Systems - I (BHN102)

(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) From what location are the 1st computer instructions available on boot up?
- | | |
|-------------|---------------|
| a. ROM BIOS | b. CPU |
| c. BOOT.INI | d. CONFIG.SYS |
- (ii) What could cause a fixed disk error?
- | | |
|--------------------|----------------------------|
| a. No-CD installed | b. Bad RAM |
| c. Slow processor | d. Incorrect CMOS settings |
- (iii) How many pins on a VGA?
- | | |
|-------|-------|
| a. 15 | b. 9 |
| c. 25 | d. 32 |
- (iv) What is modified when changing the system start-up boot sequence?
- | | |
|----------------|----------------|
| a. BIOS/CMOS | b. CONFIG.SYS |
| c. AUTOEXE.BAT | d. COMMAND.COM |
- (v) Which device is on IRQ 6?
- | | |
|-----------------|---------------|
| a. Keyboard | b. IDE |
| c. Floppy drive | d. Video card |
- (vi) Which file system DOS typically use?
- | | |
|----------|----------|
| a. FAT16 | b. FAT32 |
| c. NTFS | d. LMFS |

- (vii) Which of the following is default mode for Windows to start?
- Command prompt
 - Safe mode
 - Normal mode
 - None of the above
- (viii) A hard disk is divided into tracks which are further subdivided into
- Clusters
 - Sectors
 - Vectors
 - Heads
- (ix) The Basic Input Output System (BIOS) resides in
- RAM
 - ROM
 - The CPU
 - Memory Cache
- (x) The operating system is the most common type of Software
- Communication
 - Application
 - System
 - Word processing software

Group – B

(Short Answer Type Questions)

3 x 5 = 15

Answer any *three* from the following

- Difference between ROM and RAM. [5]
- Which file is responsible for windows virtual memory? Explain SIMM and DIMM. [2 + 3]
- What is the concept of GMCH and IOCH? [5]
- Differentiate Static RAM and Dynamic RAM. [5]
- What is the concept of Cache memory? [5]

Group – C

(Long Answer Type Questions)

3 x 15 = 45

Answer any *three* from the following

- What is the difference between FAT and NTFS file system? [5]
 - Write a short note on NTFS file system. [10]
- Describe the booting sequence of a PC. [5]
 - Describe system partition and boot partition. [10]
- Describe MBR with suitable diagram. [6]
 - What is seek time and latency time? [6]
 - What is interrupt request? [3]
- Explain 8085 microprocessor with pin diagram. [15]
- Explain zone bit recording. [9]
 - Write a short note on, types of ROM. [6]