B.C.A. (Part-I) Semester—II Examination

OPERATING SYSTEM—2ST1

Time : Three Hours] [Maximum Marks : 60

Note :—(1) **ALL** questions are compulsory.

(2) All questions carry equal marks.

(3) Use suitable data wherever necessary.

1. (a) Explain :

(i) Assembler

(ii) Compiler

(iii) Interpreter. 6

(b) Explain different components of Unix operating system. 6

OR

2. (a) What is software ? Explain Application software and System software. 6

(b) Explain :—

(i) Batch operating system

(ii) Multiprogramming

(iii) Multitasking. 6

3. (a) Explain directory structure of DOS. 6

(b) Explain :

(i) DIR

(ii) Copy

(iii) Copy Con. 6

OR

4. (a) What is Booting ? Explain different types of booting. 6

(b) Explain :

(i) Autoexec.bat

(ii) Config. sys. 6

5. (a) What is process ? Explain process states with transition diagram. 6

(b) What is process scheduling ? Explain Round Robin scheduling in brief. 6

OR

6. (a) Explain FCFS process scheduling algorithm with example. 6

(b) Consider the following snapshot of an operating system with 3 processes :

Process	Arrival time	Burst time
P_0	0	8
P_1	1	3
P_2	2	1

Compute turn around time of each process for algorithms FCFS and SJF (Use non preemptive Scheduling). 6

7. (a) Explain :

(i) Sequential file Access

(ii) Direct File Access. 6

(b) Explain linked allocation with example. 6

OR

8. (a) Explain tree structured directory with neat diagram. 6

(b) What are the basic operations performed on a file ? 6

9. (a) What is segmentation ? Explain. 6

(b) Explain any two pages replacement algorithms. 6

OR

10. (a) What is paging ? Explain. 6

(b) Explain the concept of memory fragmentation. 6