24/12-16
Ⓜ

Exam. Code : 103203
Subject Code : 1100

B.A./B.Sc. 3rd Semester

COMPUTER APPLICATIONS

(Operating System)

Time Allowed—3 Hours]   [Maximum Marks—75

Note :— Attempt any **five** questions.

1. (a) Explain the concept of dynamic memory management with reallocation.   7.5

    (b) What is an operating system ? How it has evolved ?   7.5

2. Assume the following workload in a system. All jobs arrive at time 0 in the order given. Lower number is the highest priority.

Job	Burst-time	Priority
A	10	3
B	6	1
C	7	4
D	4	2

    Give a Gantt chart illustrating the execution of three job using FCFS, Round Robin (quantum = 3) and SJF.

    15

3. (a) What are the features and benefits of UNIX ?

    5

160(2116)/RRA-4385   1   **(Contd.)**

(b) What do you mean by logical and physical address ? Explain in detail. 5

(c) Distinguish between pre-emptive and non-preemptive scheduling. 5

4. (a) Differentiate between internal and external segmentation. Which one occurs with paging system ? 5

(b) Explain the terms kernel, shell and process. 5

(c) What are the types of users in UNIX ? Explain. 5

5. (a) Mention all the commands that can be used in entering text in vi editor. Also, explain each of them briefly. 10

(b) What are the methods for providing input values to a shell script and explain. 5

6. (a) Distinguish between UNIX internal and external commands. 5

(b) Discuss the behaviour of shell as a command processor in case of UNIX. 5

(c) What is file permission ? What are the different ways of setting the file permission ? 5

7. (a) Explain different types of files of UNIX. 7.5

(b) Discuss organization of UNIX file system. 7.5

8. (a) Discuss salient features of UNIX operating system. 7.5

(b) Explain the components of UNIX in detail. 7.5