

Roll No.

Exam Code : D-24

Subject Code—62391

B.Sc. EXAMINATION

(Main/Re-appear)

(Batch 2020 Onwards)

(Third Semester)

COMPUTER APPLICATIONS

CCaL-305 Course-VI

Operating System

Time : 3 Hours

Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

1. Explain the following in detail : $8 \times 2 = 16$
 - (a) Explain in brief about multiple operating systems.

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- (b) Explain layered structure of traditional Unix system.
- (c) What is virtual memory ?
- (d) What is logical address space ?
- (e) Explain Hash table and its components briefly.
- (f) Explain in brief about FAT and its uses by operating system.
- (g) How to use pipe commands ?
- (h) Explain with an example cut and paste commands.

Unit I

- 2. What do you understand by CPU scheduling ? What is scheduling criteria for FCFS, SJF and Round Robin ? Explain each by giving suitable example. 16
- 3. Explain the following :
 - (a) Explain the concept of process in detail. 10

- (b) Explain the system booting and modes of operating system. 6

Unit II

- 4. Explain paging and segmentation in detail. 16
- 5. Explain in detail with diagram about Page Table working, characteristic and various information given by entry of page table. 16

Unit III

- 6. Discuss the following :
 - (a) Contiguous allocation 6
 - (b) Indexed allocation 5
 - (c) Linked allocation. 5
- 7. (a) Explain in detail the Hash Table structuring technique for the page table. 7
- (b) Explain various types of File Access methods in detail. 9

Unit IV

8. What do you mean by shell scripting ? Explain in detail various applications, advantages and disadvantages of shell scripting. 16
9. What are control instructions ? Explain in detail with example various types of control instructions used in shell. 16