

Roll No.

Exam Code : D-22

Subject Code—58420

B.Sc. EXAMINATION

(Main/Reappear) (Batch 2018 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. Attempt any *five* of the following : $2 \times 8 = 16$

- (a) What is waiting state of a process ?
- (b) What is need of RAM ?
- (c) What is multi-programming and multi-processing ?

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- (d) Explain Page Table.
- (e) Differentiate File and Directory.
- (f) Discuss the Structure of Directory.
- (g) What is Shell Script ?
- (h) What is Frame ?

Unit I

2. Explain the need of operating system. How is operating system defined as Resource Manager ? 16

3. (a) Explain the process of System Boot.
- (b) Why there is need of CPU Scheduling ?
Explain the following CPU scheduling algorithms : 16

- (i) FCFS
- (ii) Round Robin.

Unit II

4. Differentiate Logical Address and Physical Address. How is Logical address converted in Physical Address ? 16
5. Discuss the following : 16
- (a) Virtual Memory
 - (b) Paging vs. Segmentation.

Unit III

6. (a) What is File ? Explain the various attributes of a file.
- (b) Explain the various operations performed on file. 16
7. What are various Disk Space allocation methods ? 16

Unit IV

8. (a) Explain different modes of operation in vi editor.
- (b) What are System Calls ? 16
9. Discuss the following : 16
- (a) Decision making structures
- (b) Loops in shell.

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