

Roll No.

Total Pages : 03

BCA/M-22

1885

OPERATING SYSTEM-II

BCA-362

Time : Three Hours]

[Maximum Marks : 80

Note : Q. No. 1 is compulsory. In addition to that, attempt *four* more questions, selecting *one* question from each Unit. All questions carry equal marks.

(Compulsory Question)

1. (a) What is critical section ? What are the requirements for critical section solution ? 4
- (b) Discuss Remote File Transfer. 4
- (c) How can the ownerships of files be viewed and changed in Linux ? Discuss using examples. 4
- (d) Write a note on different modes of vi editor. How do we delete text in vi editor ? 4

Unit I

2. Discuss various classical problems of synchronization. How semaphores can be used for the solution of these problems ? 16
3. What do you understand by directory system ? Explain various directory structures in detail. 16

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Unit II

4. (a) What is swap space management ? Also discuss the following : 10
- (i) Swap space use
 - (ii) Swap space location.
- (b) Discuss SCAN and C-SCAN disk scheduling algorithms using examples. 6
5. Discuss the following w.r.t. distributed operating system : 16
- (i) Data Migration
 - (ii) Process Migration.

Unit III

6. (a) Discuss the purpose and general format of process oriented commands using examples. 8
- (b) Explain the following file handling commands using examples : 8
- (i) wc
 - (ii) split
 - (iii) comm
 - (iv) cmp.
7. (a) Explain the Linux commands that are used for arithmetic operations. 6
- (b) Discuss the architecture and distributions of Linux. 10

Unit IV

8. (a) Explain the process of starting/shutting down and logging in/out in Linux operating system. 8
- (b) Discuss various job control commands in Linux using examples. 8
9. (a) What is a shell script ? Explain the *two* types of shell variables. 8
- (b) Write a shell script to reverse a string entered by the keyboard and remove the blank spaces between the words, if any. 8