

Roll No.

Total Pages : 03

BCA/M-17

1914

OPERATING SYSTEM-II

BCA-362

Time : Three 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.

(Compulsory Question)

1. (a) Describe Critical Section. 4
- (b) What are the advantages of distributed systems ? 3
- (c) Explain the concept of pipe using example. 4
- (d) Describe file attributes in linux. 2
- (e) Explain various modes of Vi. 3

Unit I

2. (a) Write a note on Semaphore Implementation. 7
- (b) Explain the following classical problems of synchronization :
 - (i) Bounded buffer problem 3
 - (ii) The readers and writers problem 3
 - (iii) The Dining philosophers problem. 3

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3. (a) What do you mean by Critical Regions and Conditional Critical Regions ? What are its limitations. 8
- (b) Explain various methods for Recovery of lost data stored on the harddisk. 8

Unit II

4. (a) Explain the following disk scheduling algorithms by using example :
- (i) SSTF Scheduling 3
 - (ii) C-Scan Scheduling 3
 - (iii) Look Scheduling. 3
- (b) Write short notes on the following :
- (i) Remote login 3
 - (ii) Remote file Transfer. 4
5. (a) Explain Swap-space management in detail. 8
- (b) Write short notes on the following :
- (i) Data Migration 4
 - (ii) Computation Migration. 4

Unit III

6. (a) Explain various features of Linux. 4
- (b) What do you mean by Linux distribution ? Explain any six linux distribution. 6

- (c) Explain the following commands in Linux : 6³
- (i) date
 - (ii) who
 - (iii) bc.
7. (a) Explain with example at least six communication-oriented commands. 8
- (b) Explain the following commands in Linux : 8
- (i) Ps
 - (ii) Cd
 - (iii) Vdir
 - (iv) Cat.
8. (a) Describe the structure of file system in Linux. Also explain file system types in Linux. 6
- (b) Explain different disk related commands in Linux. 10
9. (a) Explain the syntax of while, until and for loops. 8
- (b) Write a program to check whether a given number is prime number or not. 8

Unit IV *OPPERWorld*