

Roll No.....

Total Pages: 3  
**1914**

**BCA/M-17**  
**OPERATING SYSTEM-II**  
Paper: BCA-362

Time: Three Hours

Maximum Marks: 80

Note: Attempt five questions including No. 1 which is compulsory. All questions carry equal marks.

**Compulsory Question**

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

Unit-I

2. (a) Write a note on Semaphore Implementation.  
(b) Explain the following classical problems of synchronization :  
(i) Bounded buffer problem  
(ii) The readers and writes problems  
(iii) The Dining philosophers problem.
3. (a) What do you mean by Critical Regions and Conditional Critical Regions?  
What are its limitations.  
(b) Explain various methods for Recovery of lost data stored on the harddisk.

Unit-II

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

### Unit-III

6. (a) Explain various features of Linux.  
(b) What do you mean by Linux distribution? Explain any six linux distribution.  
(c) Explain the following commands in Linux :
  - (i) date
  - (ii) who
  - (iii) bc.
7. (a) Explain with example at least six communication-oriented commands.  
(b) Explain the following commands in Linux :
  - (i) Ps
  - (ii) Cd
  - (iii) Vdir      (iv) Cat

### Unit-IV

8. (a) Describe the structure of file system in Linux. Also explain file system types in Linux  
(b) Explain different disk related commands in Linux.
9. (a) Explain the syntax of while, until and for loops.  
(b) Write a program to check weather a given number is prime number or not.