

DE-4032**13**

DISTANCE EDUCATION

B.C.A. DEGREE EXAMINATION, DECEMBER 2008.

PRINCIPLES OF OPERATING SYSTEMS

(2003 onwards)

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. (a) What are the main functions of an operating system? Explain. (10)
(b) Discuss the operating system concepts. (10)
2. (a) Explain the implementation of process model. (8)
(b) Describe the important aspects of Round Robin and Priority scheduling algorithms. (12)
3. (a) Explain the term semaphore, with code. (10)
(b) What is condition? How it is overcome? (10)
4. (a) Name the two categories of I/O devices and explain. (6)
(b) Discuss about the importance of Device controllers in detail. (14)

5. (a) Explain the layers of I/O system and the main functions of each layer. (10)
- (b) Describe how to prevent and to avoid the deadlock. (10)
6. (a) Discuss the multiprogramming with variable partitions. (8)
- (b) Explain the memory management with linked lists and buddy system. (12)
7. (a) Describe any two page replacement algorithms. (10)
- (b) Write a note on paging. (10)
8. (a) Discuss about Disk space management. (8)
- (b) Explain the issues associated with file security. (12)
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