

DISTANCE EDUCATION**B.C.A. DEGREE EXAMINATION, DECEMBER 2010.****PRINCIPLES OF OPERATING SYSTEM****(2003 onwards)**

Time : Three hours

Maximum : 100 marks

Answer any FIVE of the following.

(5 × 20 = 100)

1. (a) Explain the generation of a computer. (10)
(b) Explain system calls for process management and file management. (10)
2. (a) What is race condition? Explain the mutual exclusion with busy waiting. (10)
(b) Write short notes on :
 - (i) Round Robin scheduling
 - (ii) Priority scheduling
 - (iii) Multiple queue. (10)
3. (a) What is meant by interrupt handler? Explain in detailed about DMA? (10)
(b) What is dead lock? Explain the Ostrich algorithm with example. (10)
4. (a) Explain basic memory management. (10)
(b) What is paging? Explain page tables in detailed manner. (10)
5. (a) Explain :
 - (i) File access (4)
 - (ii) File Attributes (4)
 - (iii) File operations. (4)
(b) Explain the different allocations in file implementation. (8)

6. (a) Explain why real time-scheduling is commonly used and also explain the process scheduling. (10)
- (b) Discuss space management in detail. (10)
7. (a) What are the issues for paging system? (10)
- (b) Discuss least recently used page replacement algorithm. How will you create a linked list in memory management? (10)
8. (a) Explain the design principles of security. (10)
- (b) Describe the protection mechanism in detail. (10)
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