DE–5384 **13**

DISTANCE EDUCATION

B.C.A. DEGREE EXAMINATION, MAY 2009.

PRINCIPLES OF OPERATING SYSTEMS

(2003 onwards)

Time : Three hours Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1. (a) What is an operation system? Explain its history. (10)

(b) Briefly discuss about system calls and the structure of operating system. (10)

2. (a) Write short notes on inter process communication. (6)

(b) With an example explain mutual exclusion and semaphores. (14)

3. (a) Discuss about process scheduling and priority scheduling. (12)

(b) Illustrate the process of two level scheduling. (8)

4. (a) Write down the significance of device controllers. (6)

(b) Describe the goals of I/O software. (14)

5. (a) How to use interrupt handlers? Discuss. (10)

(b) Write a brief note on user-space I/O software. (10)

6. (a) Explain the concept of deadlock detection and prevention. (12)

(b) Explain the importance of memory management. (8)

7. (a) Explain about multiprogramming without swapping or paging. (10)

(b) Discuss about multiprogramming with fixed partitions. (10)

8. (a) Explain the memory management with Bit-maps and linked lists. (8)

(b) Write down the overview of file management. (12)

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