**III Semester Diploma in Computer Science and Engineering
Examination, August 2011
OPERATING SYSTEMS**

Time : 3 Hours

Max. Marks : 75

*Instructions : **All** questions are **compulsory**. **Clearly** mark question number, Part **A** and Part **B** in the answer sheet while attempting the question.*

PART – A

(1×15=15)

1. Define operating system.

2. What is process scheduling ?

3. Define swapping.

4. Define deadlock.

5. Define semaphore.

6. Define paging.

7. Define segmentation.

8. Define thrashing.

9. Define demand paging.

10. Explain single contiguous allocation.

11. Explain best fit, worst fit methods of allocation.

12. Define fragmentation.

13. Differentiate between internal and external fragmentation.

14. What are main functions of operating system ?

15. Define real time system and time sharing system.

DCS 301

PART – B   (5×12=60)

16. Define various process scheduling algorithm.

OR

What is a deadlock ? Explain the various methods to prevent deadlock.

17. What is paging ? Give mechanism to implement paging.

OR

What is segmentation ? Give mechanism to implement segmentation.

18. What is disk scheduling ? Give various disk scheduling algorithms.

OR

What is page replacement ? Give various page replacement algorithms.

19. Explain various mechanisms to avoid deadlock in a system.

OR

Give various reasons why deadlock occurs in a system.

20. Write notes on following :

e) Polling

f) Spooling

g) Multi User System

h) Buffering.

OR

Compare Unix and Windows operating system with their advantages and disadvantages.

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