BCA – 32

III Semester B.C.A. Examination, Feb./March 2010
OPERATING SYSTEMS

Time: 3 Hours Max. Marks : 80

Instructions *: 1) Answer* ***all*** *questions in Part* ***A****,* ***6*** *out of* ***8*** *questions in Part* ***B****, and* ***3*** *out of* ***5*** *questions in Part* ***C****.*
2) Part ***A*** *: Questions from* ***1*** *to* ***8*** *carry 1 mark and* ***9*** *to* ***14*** *carry* ***2*** *marks* ***each****.*
3) Part ***B*** *:* ***Each*** *question carries* ***5*** *marks.*
4) Part ***C : Each*** *question carries* ***10*** *marks.*

PART – A

1. Define a process.
2. What is a system call?
3. Define a process.
4. How do you classify software?
5. What is a thread?
6. What do you mean by batch processing ?
7. What is SPOOLING ?
8. What is starvation ?
9. What are the advantages of multi programming ?
10. What are the basic functions of an OS ?
11. What do you mean by context switching ?
12. What do you mean by buffering ?
13. What is a Dead Lock?
14. What are internal & external fragmentations ?

P.T.O.

PART – B

1. What are the different states of a process ? Explain with a block diagram.
2. Differentiate between Network and Distributed OS.
3. What do you mean by Virtual Machines ?
4. Explain shared memory technique in a process communication.
5. Consider the following process with the length of the CPU burst

Process	**Burst Time**
P1	24
P2	5
P3	3

Find Average Waiting Time using FCFS and SJF methods.

6. Explain Best fit and Worst fit.
7. Explain seek time, latency and data transfer time w.r.t. a disk.
8. What are the advantages of UNIX OS over MS-DOS OS?

PART – C

1. Explain the different types of schedulers.
2. Explain memory hierarchy.
3. Explain different OS services.
4. Explain with an example paging.
5. Discuss the different file accessing methods.

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