Dr. Babasaheb Ambedkar Open University

Term End Examination July-2016

Course	: PGDCA	**Numerical Code: (Not Require)**
Subject Code	: PGDCA – 104	**Numerical Code: (Not Require)**
Subject	: Fundamentals of Operating System	**Total Marks** : 70
Date	: **(Not Require)**	**Time** : **(Not Require)**

Section A **(30)**

Attempt any Three of the following:

1. Explain the different types of operating system.
2. What is paging and segmentation? Explain in brief.
3. Explain the file directory structure.
4. Explain the architecture of distributed operating system.
5. Explain disk arm scheduling algorithm.

Section B **(20)**

Write short notes on any four.

1. Explain the virtual memory.
2. Explain link allocation and indexed allocation in file system.
3. Explain DMA controller in I/O.
4. Explain batch operating system.
5. What is RPC? Explain it.
6. What are the advantages and disadvantages distributed shared memory.

Section C

(A) Multiple Choice Questions. **(10)**

1 In Hard Real Time System, Time:
A. varies C. zero
B. fixed D. none of these

2 Batch processing is concern with _____ computers.
A. analog C. mainframe
B. hybrid D. all

3 In logical address protection, the logical address is generated by the _____
A. memory C. memory address
B. processor D. none of these

4 In Best-fit Policy, the difference between hole size and process size is-
A. maximum C. half
B. lowest D. none of these

5 _____ is the concept where a process is copied into main memory from Secondary memory as required.
A. Paging C. Segmentation
B. Demand paging D. Swapping

6 A Catch memory acquires an access time of:
A. 100ns C. 350ns

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B. 700ns D. 500ns

7 In case of _____scheduling, the time of CPU is shared among equal Numbers as Quantum Time.
A. Round Robin C. C-Scan
B. Look D. none

8 Which is incorrect in case of Contiguous Allocation?
A. files are assigned to contiguous areas of secondary storage
B. specific size by the user
C. file can be created with any space requirement
D. successive records of file are adjacent to each other

9 In Distributed Operating System, the processor has its own_____.
A. data C. memory
B. information D. all

10 In an object-based style system, there exists a connector as____.
A. RPC C. RCP
B. RIM D. PCR

(B) True or False. (10)

1. UNIX is GUI interface.
2. A smaller page size leads to smaller page table.
3. Threads are cheaper to create than process.
4. Operating system is not responsible for resource allocation between competing processes.
5. A blocking user level thread blocks the process.
6. While direct memory access is tacking place, processor is free.
7. The page sizes or the frame sizes will be of power 2, and fluctuates between 512 bytes to 8192 bytes per page.
8. In logical address protection, the logical address is generated by the processor.
9. Swap space is present in CPU
10. A page replacement algorithm decides which memory pages to be exchanged.

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