

OPERATING SYSTEM (PYQ)

➤ **Maximum Marks: 70**

➤ **SECTION A (Short Answer – 4 Marks each)**

▪ **All questions compulsory**

1. Define Process in OS. Explain Multiprocessing OS.

OR

Differentiate between Multiprocessing and Multithreading.

2. What is CPU Scheduling? Benefits?

OR

Explain File System Interface and access methods.

3. What is Swapping? Where is it used?

OR

Differentiate Paging and Segmentation.

4. Explain Deadlock Handling methods.

OR

What is Critical Section Problem?

5. What is Process Control Block?

OR

Draw Process State Transition Diagram.

➤ **SECTION B (Long Answer – 10 Marks each)**

➤ **Attempt any five**

6. Define OS and its role. Differentiate Time-sharing and Batch OS.

7. Explain Directory Structure and its types.

8. Explain Scheduling criteria and algorithms.

9. Explain:

(a) Deadlock avoidance

(b) Interprocess communication

10. Differentiate:

(a) Multiprogramming vs Multitasking

(b) Multiprocessor vs Distributed system

11. Solve using SRTF:

$P_1(0,7)$, $P_2(2,4)$, $P_3(4,1)$, $P_4(5,4)$

Find Gantt chart, waiting time, turnaround time, throughput.

12. Explain Demand Paging and Page Replacement Algorithms.

