

Chilkur Balaji Institute of Technology

Operating System (Question Bank)

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UNIT - I:

Computer System and Operating System Overview:

- 1) a. what is OS? Explain its objectives.
b. Explain responsibilities of OS.
- 2) a. Explain about various functions of OS.
b. Explain about distributed systems and special purpose systems.
- 3) Discuss various approaches for designing an OS with its advantages and limitations.
- 4) a. Explain the role of OS according to its two view points.
b. Explain the services provided by OS.
- 5) Write short notes on system calls and system engineering.

UNIT – II:

Process Management:

- 1) a. What is process?
b. Explain about process states with state transition diagram.
c. Explain a situation when a process changes its states.
d. What is process control block?
- 2) a. What is process Scheduling. Explain about different types of schedulers.
b. Explain different scheduling criteria.
- 3) a. what is inter-process communication? Explain fundamental models of inter-process communication.
b. Explain the operation of process.
- 4) What is primitive scheduling? Explain the CPU scheduling algorithms that follow primitive scheduling.
- 5) What is non-primitive scheduling? Explain the CPU scheduling algorithms that follow non-primitive scheduling.
- 6) a. what is thread. Explain the difference between process & thread.
b. Explain multi threaded models.
- 7) a. What are user level threads and kernel level threads? Explain with their advantages and disadvantages.

- b. Explain difference between them.

UNIT - IV:

Memory Management:

- 1) a. Explain basic hardware of memory management.
b. Explain about address binding.
- 2) a. What are logical and physical addresses?
b. Explain about how logical address is mapped to physical address during execution time.
- 3) a. Explain briefly about contiguous memory allocation.
b. Explain about different memory allocation techniques with their advantages and disadvantages.
- 4) a. Explain about different types of fragmentation with examples. Explain about memory compaction.
b. Explain the techniques of allocating the memory in free holes.
- 5) What is paging? Explain with its basic hardware.
- 6) Explain paging hardware with TLB (Translation Look aside Buffer).
- 7) Explain page replacement algorithms with examples.
- 8) Explain about segmentation.

Note: - remaining units will be updated soon!
