St. Joseph’s College for WOMEN (A) Visakhapatnam

Semester IV Computer Science Time 3:00 Hrs

Code: CS4601 (3) OPERATING SYSTEMS Max. Marks: 60m

MODEL QUESTION PAPER

Answer **ANY FIVE** of the following. 5 x 10 = 50M

1. What is an Operating System? Explain about different types of operating system with an example.
2. Define System call. Explain about threads and threading issues.
3. Demonstrate FIFO and Round Robin CPU scheduling algorithms with suitable example
4. a) Explain the Process State with a neat Diagram.

b) Write the Algorithm for two process synchronization to critical section problem and discuss briefly.

1. a) Discuss the necessary conditions that cause deadlock situation to occur.

b) How does deadlock avoidance differ from deadlock prevention?

1. Explain the difference between External fragmentation and internal fragmentation. How to solve the fragmentation problem using paging.
2. a) Explain disk structure with a neat sketch.

b) Explain different directory structures.

1. Explain Android operating system along with its architecture.

Answer **ANY FIVE** of the following 5 x 2 = 10M

1. List the functions of the Operating system
2. Differentiate between kernel mode and user mode.
3. Define a process. How it differs from a program?
4. Differentiate between Non-Preemptive and Preemptive Scheduling.
5. What is a critical section?
6. What is a deadlock?
7. Explain about protection in operating system.