

# CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

15EC553

## Fifth Semester B.E. Degree Examination, Aug./Sept.2020 Operating System

Time: 3 hrs.

Max. Marks: 80

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. Explain goals and key concerns of an operating system. (08 Marks)  
b. Describe Resource Allocations with diagram. (08 Marks)

OR

- 2 a. Explain time sharing systems. (08 Marks)  
b. Explain features of distributed operating system. (08 Marks)

### Module-2

- 3 a. Explain Operating Systems view of processes. (08 Marks)  
b. Write note on: i) Process Control Block ii) Event Control Block. (08 Marks)

OR

- 4 a. Explain Threads. (04 Marks)  
b. Perform FCFS scheduling and find average turn around time, average weighted turn around time of given set of processes.

Processes	P1	P2	P3	P4	P5
Arrival Time (Sec)	0	2	3	4	8
Service Time (sec)	3	3	5	2	3

- c. Explain long, medium and short term scheduling in time sharing systems. (06 Marks)

### Module-3

- 5 a. Explain contiguous memory allocation technique. (08 Marks)  
b. Explain concept of paging. (08 Marks)

OR

- 6 a. Explain demand paging with diagram. (08 Marks)  
b. Explain FIFO page replacement policy. (08 Marks)

### Module-4

- 7 a. Explain with neat diagram file systems and IOCS. (08 Marks)  
b. List and explain different file operations. (08 Marks)

OR

- 8 a. Explain with neat diagram Interface between file system and IOCS. (08 Marks)  
b. Explain Allocation of disk space. (08 Marks)

### Module-5

- 9 a. Explain message passing and issues related to it. (08 Marks)  
b. Explain with diagram mailbox and its advantages. (08 Marks)

OR

- 10 a. Explain message passing implementation. (08 Marks)  
b. Describe Resource stat modeling. (08 Marks)

\* \* \* \* \*

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.