

Total No. of Questions : 8]

[Total No. of Printed Pages : 2

Roll No

IT-4003-CBGS

B.E., IV Semester

Examination, June 2020

Choice Based Grading System (CBGS)

Operating System

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

- Explain Process Control Block. Draw the block diagram of process transition states.
 - What is system call? Explain briefly about various types of system calls provided by an operating system.
- What is average waiting time and average turn around time of all process for FcFs and SRTF?

Process	Arival time	Burst time
P1	1	7
P2	3	6
P3	4	9
P4	5	10

- What is Thread? What resources are used when a thread is created? How do they differ from those used when a process is created?
 - Differentiate between external and internal fragmentation.

IT-4003-CBGS

PTO

[2]

4. Consider the main memory with capacity of 4 page frames. Assume that the page of a process are referenced in the order given below.

1, 3, 4, 5, 3, 2, 5, 4, 3, 3, 2, 1

Which one is better FIFO and LRU and why?

5. a) If the average page fault service time of 25ms and on memory access time of 10ns. Calculate the effective access time?
b) Explain the concept of virtual memory.
6. a) Explain the concept of dirty bit for improving the performance during page fault?
b) Explain file access methods.
7. Suppose that a disk drive has 200 cylinders, numbered 0 to 199 of the work queue is 23, 89, 132, 142, 187. Determine the total distance for the following disk scheduling Algorithm.
i) SCAN
ii) Look
iii) C-look
8. Write a short notes (any three):
i) I-node
ii) Thrashing
iii) Best and worst fit
iv) Kernel
