BACHELOR OF TECHNOLOGY (C.B.C.S.) (2020 COURSE)
B.Tech.Sem - IV IT :SUMMER- 2022
SUBJECT : OPERATING SYSTEM

Day : Friday

Date : 24-06-2022　　　　**S-24722-2022**

Time : 10:00 AM-01:00 PM

Max. Marks : 60

N.B.
1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Assume suitable data wherever necessary.

Q.1　Enlist and define various operating system calls and system programs with reference to suitable example. **(10)**

OR

Q.1　Describe memory hierarchy along with cache memory and direct memory access. **(10)**

Q.2　Describe SJF scheduling algorithm. Also calculate average waiting time with reference to Gantt chart. **(10)**

OR

Q.2　What do you mean by pre-emptive and non-pre-emptive scheduling? Describe Round Robin scheduling with suitable example. **(10)**

Q.3　What is memory allocation? Explain First Fit, Best Fit and Worst Fit memory allocation strategy with an example. **(10)**

OR

Q.3　Describe FIFO page replacement policy with reference to suitable example. **(10)**

Q.4　Describe basic concepts of inter process communication and synchronization with suitable example. **(10)**

OR

Q.4　Explain Bounded-Buffer-Shared memory solution with suitable example. **(10)**

Q.5　Describe disk scheduling and management with reference to suitable example. **(10)**

OR

Q.5　Explain file allocation method with an example. **(10)**

Q.6　What do you mean by deadlock? Explain principles of deadlock. **(10)**

OR

Q.6　Describe deadlock prevention, avoidance and deadlock detection with an example. **(10)**

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