

Seat No. : _____

SL-104

September-2020

B.Sc., Sem.-VI

CC-310 : Computer Science (Operating System)

Time : 2 Hours]

[Max. Marks : 50

- Instructions :**
- (1) All Questions in Section-I carry equal marks.
 - (2) Attempt any **three** questions in Section-I.
 - (3) Question **9** in Section-II is compulsory.

SECTION – I

1. Write the following :
 - (A) What is an Operating System ? Explain operating system from user & system point of view. 7
 - (B) Explain multithreading operating system & Multiprocessing operating system in detail. 7

2. Write the following :
 - (A) What do you understand by Network Operating System ? Explain with advantage & disadvantages and also explain essential components of computer system with diagram. 7
 - (B) What is memory allocation ? Explain its aim & draw classification chart with difference between contiguous & non-contiguous memory allocations. 7

3. Write the following :
 - (A) What do you understand by multiprogramming with fixed partitions ? Explain it with two possible ways to implement this method in detail. 7
 - (B) Write short note on Paging & Segmentation. 7

4. Write the following :
 - (A) What is swapping ? Why this concept is needed in operating system ? 7
 - (B) Explain Process Concepts with all Process States in detail. 7

5. Write the following :
- (A) Explain shortest Job First Scheduling algorithm with proper example. 7
- (B) Explain Round Robin Scheduling algorithm with proper example. 7
6. Write the following :
- (A) Explain contiguous & linked allocation methods with advantages & disadvantages. 7
- (B) What is MMU ? Explain its all operations in detail. 7
7. Write the following :
- (A) What do you understand by logical & physical address ? Explain PAS in physical address. 7
- (B) Explain SRTN algorithm with proper example. 7
8. Write the following :
- (A) What do you understand by IPC ? 7
- (B) What do you understand by virtual memory ? Explain in detail. 7

SECTION – II

9. MCQs. : (Any **Four**) 8
- (1) A program in execution is called
- (a) Process (b) Instruction
- (c) Procedure (d) Function
- (2) Interval between the time of submission and completion of the job is called
- (a) Waiting Time (b) turnaround time
- (c) throughput (d) response time
- (3) A scheduler which selects processes from secondary storage device is called
- (a) Short term scheduler (b) long term scheduler
- (c) mid term scheduler (d) process scheduler

- (4) The scheduling in which CPU is allocated to the process with least CPU-burst time is called
- (a) Priority scheduling (b) Shortest job first scheduling
(c) Round robin Scheduling (d) Multilevel Queue Scheduling
- (5) A deadlock in an operating system is
- (a) Desirable Process (b) Undesirable Process
(c) Definit waiting process (d) All of these
- (6) Page making process from main memory to disk is called
- (a) interruption (b) termination
(c) Swapping (d) None of these
- (7) Which of the following is not a fundamental process state ?
- (a) Ready (b) Terminated
(c) Executing (d) Blocked
- (8) Which scheduling policy is most suitable for a time shared operating system ?
- (a) Shortest Job First (b) Elevator
(c) Round Robin (d) FCFS
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