22NMB210N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION MAY 2025
(Second Semester)

Branch – **NETWORKING AND MOBILE APPLICATION**

OPERATING SYSTEM CONCEPTS

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 × 1 = 10)

Question No.	Question	K Level	CO
1	If you need to duplicate the entire disk, which command will you use? a) Copy b) Diskcopy c) Chkdsk d) Format	K1	CO4
2	What is the entry of all the PCBs of the current processes is in ____ a) Process Register b) Program counter c) Process Table d) Process unit	K2	CO5
3	Which processes that are residing in main memory and are ready and waiting to be executed, are kept on a list called? a) Process queue b) Execution queue c) Ready queue d) Job queue	K2	CO5
4	Which system call is used by the operating system to create a new process? a) Fork() b) Exec() c) Pipe() d) Open()	K2	CO5
5	Memory management technique in which system stores and retrieves data from secondary storage for use in main memory is called? a) Fragmentation b) Paging c) Mapping d) Buffering	K2	CO5
6	What is a situation when a program misbehaves only when certain conditions met otherwise it works as a genuine program? a) Trojan Horse b) Trap Door c) Logic bomb d) Virus	K2	CO5
7	A process is moved to wait queue when I/O request is made with _____. a) Non-blocking I/O b) Blocking I/O c) asynchronous I/O d) synchronous I/O	K1	CO4
8	The heads of the magnetic disk are attached to a _____ that moves all the heads as a unit a) Spindle b) Track c) Disk arm d) Pin	K1	CO4
9	Which file is a sequence of bytes organized into blocks understandable by the system's linker ? a) Object file b) Source file c) Executable file d) Text file	K2	CO5
10	Mapping of file is managed by _____. a) File metadata b) Page table c) Virtual memory d) File system	K1	CO4

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Question No.	Question	K Level	CO
11.a.	Explain in detail about the Process Control.	K1	CO1
	(OR)		
11.b.	Compare Simple Batch Systems and Multiprogrammed Batch systems.	K2	CO3
12.a.	List out the various types of Threads.	K1	CO4
	(OR)		
12.b.	Organize the Principles of Concurrency in Mutual Exclusion.	K3	CO3
13.a.	Identify and explain the Segmentation in detail.	K4	CO4
	(OR)		
13.b.	Demonstrate the Memory Management Requirements.	K2	CO4
14.a.	Explain the Evolution of I/O functions in I/O Management.	K4	CO4
	(OR)		
14.b.	Estimate the Disk Cache in operating system.		
15.a.	Defend and explain the File Sharing.	K1	CO4
	(OR)		
15.b.	Estimate the File Directories in operating system.	K5	

SECTION -C (30 Marks)

Answer **ANY THREE** questions
ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Question No.	Question	K Level	CO
16	What is Process? Examine Process States in detail with diagram.	K1	CO4
17	Identify and explain the Deadlock Prevention and Deadlock Avoidance.	K3	CO4
18	Extend the various Types of Process Scheduling.	K2	CO4
19	Classify in detail about the Disk Scheduling.	K4	CO4
20	Elaborate on File Organization and Access.	K1	CO4

Z-Z-Z END