19NMB02

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION DECEMBER 2022
(First Semester)

Branch – **NETWORKING AND MOBILE APPLICATION**

OPERATING SYSTEM CONCEPTS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1. A Process Control Block (PCB) does not contain which of the following:
   i) Code (ii)Stack
   (iii) Bootstrap program (iv) Data

2. The Banker's algorithm is used
   i) To avoid deadlock (ii) To detect deadlock
   (iii) To prevent deadlock (iv) To solve deadlock

3. _____ is the concept in which a process is copied into main memory from the secondary memory according to the requirement.
   i) Paging (ii) Demand paging
   (iii) Segmentation (iv) Swapping

4. Which of the following is/are the technique(s) for performing I/O management function.
   (i) Programmed I/O (ii) Interrupt driven I/O
   (iii) Direct Memory Access (iv) All of the above

5. File attributes consist of:
   i)Name (ii) Type
   (iii)Identifier (iv) Name, Type and Identifier

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a. Describe the objectives of Operating System.

OR

b. Outline the attributes of Process Control Block.

7 a. Show the principles of Deadlock.

OR

b. State the features of Concurrency Control.

8 a. Summarize the types of Memory Partitioning techniques.

OR

b. Classify Static and Dynamic Memory Allocation.

9 a. Analyze the I/O Devices.

OR

b. Prepare and write the organization of I/O Function.

10 a. State about the File Directories.

OR

b. How is the file be shared?

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11 a. Analyze the Evolution of Operating System.

OR

b. Discuss the Process Description and Control.

12 a. Enumerate the Deadlock Prevention Strategies.

OR

b. Examine the Deadlock Avoidance algorithm.

13 a. Summarize the Memory Management Requirements.

OR

b. Highlight the Paging technique and its implementation.

14 a. Examine the I/O Buffering technique.

OR

b. Elucidate the SCAN Disk Scheduling algorithm.

15 a. Classify the different File Organization methods.

OR

b. Discuss the Secondary Storage Management.

Z-Z-Z

END