PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION DECEMBER 2023
(First Semester)

Branch – NETWORKING & 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 An _____ is a program that controls the execution of application programs and acts as an interface between applications and the computer hardware.
(i) Operating System   (ii) Hardware
(iii) Utilities   (iv) Application Software

2 In OS _____ is defined as the permanent blocking of a set of processes that either compete for system resources or communicate with each other.
(i) Paging   (ii) Semaphores
(iii) Deadlock   (iv) Segmentation

3 In _____ Memory Management Techniques Partitions are created dynamically, so that each process is loaded into a partition of exactly the same size as that process.
(i) Fixed Partitioning   (ii) Dynamic Partitioning
(iii) Simple Paging   (iv) Simple Segmentation

4 Expand RAID.
(i) Redundant Array of Independent Disks
(ii) Redundant Array of Independent Drives
(iii) Redundant Array of Internet Disks
(iv) Redundant Array of Internet Drives

5 The least-complicated form of file organization is termed as _____. Data are collected in the order in which they arrive. The purpose is to accumulate the mass of data and save it.
(i) The Sequential File   (ii) Indexed sequential file
(iii) The Pile   (iv) Indexed file

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

6 a Narrate in detail about The Operating System as a User/Computer Interface.
OR
   b Explain in detail about the Two-State Process Model.

7 a Describe in detail about Deadlock Avoidance.
OR
   b Explain in detail about the Deadlock Prevention.

8 a Explain in detail about Security Issues in Memory Management.
OR
   b Narrate in detail about Paging in Memory Management.

9 a Describe in detail about I/O Devices.
OR
   b State in detail about Disk Scheduling.

10 a Narrate in detail about The File Directories.

OR

b Describe in detail about File System Security.

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

11 a Discuss in detail about The Evolution of Operating Systems.

OR

b Elucidate in detail about the Operating System Control Structures in Process Description.

12 a Outline in detail the about Principles of Deadlock.

OR

b Discuss in detail about Deadlock Detection.

13 a Enumerate in detail about Dynamic Partitioning in Memory Management.

OR

b Discuss in detail about the Memory Management Requirements.

14 a Summarize in detail about Organization Of The I/O Function.

OR

b Discuss in detail about Direct Memory Access (DMA) in I/O.

15 a Elucidate in detail about File Organization and Access in OS.

OR

b Outline in detail about Secondary Storage Management in File Management.

Z-Z-Z   END