PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Third Semester)

Branch – **COMPUTER SCIENCE**

OPERATING SYSTEMS

Time: Three Hours

Maximum: 50 Marks

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

1 The number of processes completed per unit time is known as _____.
   (i) Output   (ii) Capacity
   (iii) Throughput   (iv) Efficiency

2 Which one of the following is the deadlock avoidance algorithm?
   (i) Bankers Algorithm   (ii) LRU Algorithm
   (iii) Elevator Algorithm   (iv) Round robin Algorithm

3 Operating System maintains the page table for _____
   (i) each thread   (ii) each address
   (iii) each process   (iv) each instruction

4 The time taken to move the disk arm to the desired cylinder is called the
_____
   (i) Seek time   (ii) random access time
   (iii) rotational latency   (iv) positional time

5 A typical _____ program obtains a remote reference to one or more remote objects on a server and then invokes methods on them.
   (i) Server   (ii) Thread
   (iii) Client   (iv) Concurrent

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

6 a Discuss on computer system Architecture.
OR
  b Explain about process concept.

7 a Give specify about semaphore concept.
OR
  b What are the ways to recovery from deadlock?

8 a Write note on swapping.
OR
  b Elucidate demand paging.

9 a Discuss on I/O Hardware.
OR
  b Explain about Interrupts.

10 a Clarify on Traditional Computing.
OR
  b Illustrate on BSD Unix.

Cont...

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

11 a   Write a note on Round Robin Algorithm with an example?
                                OR
    b   How inter process communication is achieved in operating system?

12 a   Explain about bankers algorithm in deadlock detection.
                                OR
    b   Describe on Resource allocation graph in deadlock avoidance.

13 a   Briefly explain about page replacement algorithms.
                                OR
    b   Discuss on Directory & Disk structures.

14 a   Write on disk scheduling algorithms with example.
                                OR
    b   Explicate an applications of I/O Interface.

15 a   Explain about Distribute OS and multimedia OS.
                                OR
    b   Compare Real time OS and Mobile OS.

Z-Z-Z   END