

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION MAY 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. _____ is an interface between applications and computer hardware.
(i) Package (ii) Operating system
(iii) Programming Language (iv) Binary Language
2. A deadlock avoidance algorithm dynamically examines the _____ to ensure that a circular wait condition can never exist.
(i) Resource Allocation State (ii) System Storage State
(iii) Operating System (iv) Resources
3. Logical memory is broken into blocks of the same size called _____.
(i) Frames (ii) Pages
(iii) Backing store (iv) Files
4. The time taken to move the disk arm to the desired cylinder is called the _____.
(i) Positioning time (ii) Random access time
(iii) Seek time (iv) Rotational latency
5. File type can be represented by _____.
(i) File name (ii) File extension
(iii) File identifier (iv) File size

SECTION - B (15 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 3 = 15)

6. a. Explain the evolution of Operating System.
OR
b. Discuss about Process control.
7. a. List out the conditions for deadlock.
OR
b. Explain about Deadlock detection.
8. a. Describe the types of fragmentation.
OR
b. Differentiate the Logical address and Physical address.
9. a. Explain the three categories of I/O devices.
OR
b. Illustrate Direct Memory Access.

Cont...

- 10 a. Explain about B-Trees.
OR
b. What are the three methods of Blocking? Explain

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

- 11 a. Describe in detail about "OS as Resource Manager".
OR
b. Enumerate the five state process model with diagram.
- 12 a. Demonstrate Banker's algorithm for deadlock avoidance.
OR
b. Explain about deadlock prevention.
- 13 a. Elaborate memory management requirements.
OR
b. Discuss about Paging techniques.
- 14 a. Explain in detail on RAID.
OR
b. Describe the disk scheduling algorithms.
- 15 a. Outline file organization concepts.
OR
b. Elucidate Secondary storage management.

Z-Z-Z

END