

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023  
(Third Semester)

Branch – INFORMATION TECHNOLOGY

OPERATING SYSTEM

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. Which of the following are CPU scheduling algorithms?  
(a) Priority scheduling (b) Round Robin  
(c) Shortest Job First (d) All of the above
2. Which of the type of OS reads and reacts in terms of actual time?  
(a) Quick Sharing OS (b) Time Sharing OS  
(c) Real time OS (d) Batch OS
3. What is the full name of FAT?  
(a) File Attribute table (b) File allocation table  
(c) Font attribute table (d) Format allocation table
4. What is the mean of the Booting in the operating system?  
(a) Restarting computer (b) Install the program  
(c) Scan (d) To turn off
5. Which of the following is a single-user operating system?  
(a) Windows (b) Ms-Dos  
(c) MAC (d) None of these

SECTION - B (15 Marks)

Answer ALL questions

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

6. a) Define the Operating system and its service.  
**OR**  
b) Write short notes about the Linkers and Loaders.
7. a) Summarize the factors followed in Scheduling criteria.  
**OR**  
b) Explain the process involved in Deadlock Characterization.
8. a) Give a detail note on Memory compression.  
**OR**  
b) Outline the procedure for Handling page fault.
9. a) Explain the RAID structure in detail.  
**OR**  
b) Elaborate the Mass-Storage Structure.

Cont...

10. a) Discuss about the File Directory structure.

**OR**

b) What is meant by File System recovery? How it is performed?

**SECTION -C (30 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** Marks

(5 x 6 = 30)

11. a) Explain the Resource management in detail.

**OR**

b) Demonstrate the Process Scheduling.

12. a) Elucidate about the Semaphores and Monitors.

**OR**

b) Explicate the Thread Scheduling with example.

13. a) Explain the Contiguous Memory Allocation in detail.

**OR**

b) Enumerate the Page Replacement algorithm.

14. a) Discuss about the Error detection and Correction.

**OR**

b) Explicate the NVM Scheduling in detail.

15. a) Explain the File system Operations .

**OR**

b) Discuss about the Free-Space Management algorithm.

Z-Z-Z

**END**