FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2021 ONLY)   REG.NO

NGM COLLEGE (AUTONOMOUS) POLLACHI

END-OF-SEMESTER EXAMINATIONS: DECEMBER-2022

B. Sc-Information Technology   **MAXIMUM MARKS: 70**

III SEMESTER   **TIME: 3 HOURS**

PART III

OPERATING SYSTEMS

SECTION – A   **(10 X1 = 10 MARKS)**
ANSWER THE FOLLOWING QUESTIONS
MULTIPLE CHOICE QUESTIONS   **(K1)**

1. What is mean by Booting in the operating system?
    a) Restarting computer   b) Install the program
    c) To scan   d) To turn off

2. The portion of the process scheduler in an operating system that dispatches processes is concerned with _____
    a) assigning ready processes to waiting queue
    b) assigning running processes to blocked queue
    c) assigning ready processes to CPU
    d) all of the mentioned

3. The circular wait condition can be prevented by _____
    a) defining a linear ordering of resource types   b) using thread
    c) using pipes   d) all of the mentioned

4. _____ is the characteristic of a Distributed File System.
    a) Fault tolerance   b) Scalability
    c) Heterogeneity of the system   d) Upgradation

5. _____ uses hardware protection for virtual memory, and software protection mechanisms for operating system resources protection mechanisms for operating system resources.
    a) Compatibility   b) Reliability   c) Extensibility   d) Portability

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES   **(K2)**

6. What is an operating system?

7. Define Process.

8. What is contiguous memory allocation?

9. Define Parallel processing.

10. What is portability in Windows XP?

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SECTION – B **(5 X 4 = 20 MARKS)**
ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) Describe the file directory entry.
(OR)
b) What are the uses of system calls?

12. a) What is a semaphore? Explain.
(OR)
b) Describe the producer and consumer problem.

13. a) What are the page replacement policies? Explain
(OR)
b) Write short notes on graphical representation of a deadlock.

14. a) What are the advantages of parallel processing? Explain
(OR)
b) Discuss the cache management.

15. a) Write short notes on NTFS.
(OR)
b) Describe the Windows NT memory management technique.

SECTION – C **(4 X 10 = 40 MARKS)**
ANSWER ANY FOUR OUT OF SIX QUESTIONS.
(16TH QUESTION IS COMPULSORY AND ANSWER ANY THREE
QUESTIONS FROM Q.NO: 17 TO 21) **(K4) OR (K5)**

16. Discuss the Deadlock strategies in detail.

17. Write short notes on (i) I/O procedure (ii) I/O Scheduler

18. Discuss the process states and transitions in detail.

19. Explain the basic concept of paging and segmentation.

20. Discuss the distributed file management in detail.

21. Explain Windows XP architecture in detail.

A-11 ******************

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