(NO. OF PAGES: 2)

(FOR THE CANDIDATES ADMITTED **23PCS103**

DURING THE ACADEMIC YEAR 2023 ONLY) **REG.NO. :**

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2023

M.Sc COMPUTER SCIENCE(SF) **MAXIMUM MARKS: 75**

SEMESTER : V **TIME : 3 HOURS**

PART-III

23PCS103-ADVANCED OPERATING SYSTEM

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS. (K1)

1. To access the services of operating system, the interface is provided by the _____
   a) System calls
   b) API
   c) Library
   d) Assembly instructions
2. In distributed system, each processor has its own _____
   a) local memory
   b) clock
   c) both local memory and clock
   d) data migration
3. For real time operating systems, interrupt latency should be _____
   a) minimal
   b) maximum
   c) zero
   d) dependent on the scheduling
4. Which of the following is the core module of Android for Internet computing?
   a) SQLite RDBMS
   b) SQL Server RDBMS
   c) OpenPL
   d) None of the mentioned
5. Which is an example for character special file?
   a) Hard disk
   b) CD-ROM
   c) Terminal
   d) Memory

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

6. What is Deadlock?
7. Define Lamport's Logical Clock.
8. Define the Real Time Operating Systems.
9. Define Handheld Operating Systems.
10. What are Linux File Systems?

(CONT…2)

SECTION – B (5 X 5 = 25 MARKS)

ANSWER THE FOLLOWING QUESTIONS. (K3)

11. a) Classify the types of Advanced Operating Systems.

(OR)

b) Describe the Critical Section Problem in Synchronization mechanisms.

12. a) Examine the Deadlock handling strategies in Distributed Systems.

(OR)

b) Summarize the design issues in DFS.

13. a) Describe the applications of Real Time Systems.

(OR)

b) Explain the characteristics of Real Time Task Scheduling.

14. a) Describe the features of handled operating system.

(OR)

b) How to secure handheld systems? Explain.

15. a) Examine the Project scheduling.

(OR)

b) Describe the Process Management in Linux.

SECTION – C (5 X 8 = 40 MARKS)

ANSWER THE FOLLOWING QUESTIONS.(K4 (Or) K5)

16. a) Discuss the functions of an operating system.

(OR)

b) Classify the models of Deadlocks.

17. a) Summarize the issues in Distributed Operating Systems.

(OR)

b) Discuss the issues in Deadlock detection and resolution.

18. a) Summarize the basic model of Real Time System.

(OR)

b) Analyse the safety and reliability in Real time system.

19. a) Discuss in detail the requirements and technology of Handled system.

(OR)

b) Differentiate between Palm OS and Symbian OS.

20. a) Discuss the Linux Kernel Architecture with neat diagram.

(OR)

b) Summarize the functions of ios architecture and SDK framework.

****