

(NO. OF PAGES: 2)

(FOR THE CANDIDATES ADMITTED

24PCS104

DURING THE ACADEMIC Year 2024-2026 ONLY)

REG.NO. :

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

END-OF-SEMESTER EXAMINATIONS : NOVEMBER 2024

M.Sc. Computer Science

MAXIMUM MARKS: 75

SEMESTER: I

TIME : 3 HOURS

24PCS104-ADVANCED OPERATING SYSTEMS

SECTION - A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

- 1) BIOS is used by ? (K1)
 - a) operating system
 - b) compiler
 - c) interpreter
 - d) application software
- 2) On systems where there is multiple operating systems, the decision to load a particular one is done by? _____(K1)
 - a) process control block
 - b) file control block
 - c) boot loader
 - d) bootstrap
- 3) If a process fails, most operating system write the error information to a _____(K1)
 - a) new file
 - b) another running process
 - c) log file
 - d) entry file
- 4) _____ is the concept in which a process is copied into the main memory from the secondary memory according to the requirement. (K1)
 - a) Paging
 - b) Demand paging
 - c) Segmentation
 - d) Swapping
- 5) _____ is a unique tag, usually a number identifies the file within the file system. (K1)
 - a) File identifier
 - b) File name
 - c) File type
 - d) Directory name

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

- 6) Why do we need advanced operating systems? (K2)
- 7) Define: "Deadlock". (K2)
- 8) Illustrate the benefits of real time Operating Systems. (K2)
- 9) Relate the use of Google Android. (K2)
- 10) Write a note on SDK framework. (K2)

SECTION – B (5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

- 11) a) Discover the functions of an Operating System. (K3)
(or)
b) Examine the different models of deadlocks. (K3)

Ethical paper

(CONT..2)

- 12) a) Determine the issues in Distributed Operating Systems. (K3)
(or)
b) Evaluate the deadlock handling strategies in distributed systems. (K3)
- 13) a) Summarize the applications of Real Time Operating Systems. (K3)
(or)
b) Estimate the characteristics of real time operating systems. (K3)
- 14) a) Show the functions of handheld Operating Systems. (K3)
(or)
b) Outline the general requirements of Symbian OS. (K3)
- 15) a) Illustrate the memory management in Linux system. (K3)
(or)
b) Describe the steps to explore the file system of Linux. (K3)

Section-C (5 X 8 = 40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

- 16) a) Elaborate the different types of advanced Operating Systems. (K4)
(or)
b) Analyze the concept of critical section problem with example. (K5)
- 17) a) Demonstrate the implementation of Lamport's logical clocks. (K4)
(or)
b) Assess the design issues in distributed file system. (K4)
- 18) a) Identify the basic model of Real Time System. (K5)
(or)
b) Elucidate the need of Real Time task scheduling. (K4)
- 19) a) Outline the general architecture of Palm OS. (K5)
(or)
b) Conclude the process of securing handheld systems. (K4)
- 20) a) Integrate the process management of in Linux Operating System. (K5)
(or)
b) Estimate the comparative analysis of Linux and iOS. (K5)
