

**FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2021 ONLY)**

**REG.NO**

**NGM COLLEGE (AUTONOMOUS) POLLACHI**

**END-OF-SEMESTER EXAMINATIONS: DECEMBER-2022**

**B. Sc-Computer Science (Aided & SF)**

**MAXIMUM MARKS: 70**

**III SEMESTER**

**TIME: 3 HOURS**

**PART III**

**SYSTEM SOFTWARE AND OPERATING SYSTEM**

**SECTION – A**

**(10 X1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS  
MULTIPLE CHOICE QUESTIONS**

**(K1)**

1. Loader is a program that \_\_\_\_\_
  - (a) Places programs into memory and prepares them for execution
  - (b) Automates the translation of assembly language into machine language
  - (c) Accepts a program written in a high level language and produces an object program
  - (d) Appears to execute a source program as if it were machine language
2. What is Compiler?
  - (a) System program that converts instructions to machine language
  - (b) System program that converts machine language to high-level language
  - (c) System program that writes instructions to perform Compilation
  - (d) System program that reads instructions to perform Compilation
3. What is the ready of a process?
  - (a) When process is scheduled to run after some execution
  - (b) When process is unable to run until some task has been completed
  - (c) When process is using the CPU
  - (d) When process is using the ALU
4. \_\_\_\_\_ is the concept in which a process is copied into the main memory from the secondary memory according to the requirement.
  - (a) Paging
  - (b) Demand Paging
  - (c) Segmentation
  - (d) Swapping
5. The heads of the magnetic disk are attached to a \_\_\_\_\_ that moves all the heads as a unit.
  - (a) Spindle
  - (b) Track
  - (c) Disk Arm
  - (d) Cylinders

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

6. Define System Software.
7. What is Interpreter?
8. What is an Operating System?
9. Define Deadline Scheduling.
10. What is file descriptor?

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

11. a) Outline the design of an Absolute Loader.  
(OR)  
b) Discuss the merits of Linkage Editor.
12. a) Describe Machine Dependent Code Optimization.  
(OR)  
b) Elucidate the features of machine independent compiler.
13. a) What are the Five states of a process in operating system? Explain.  
(OR)  
b) Compare Contiguous Vs Non-Contiguous storage allocation
14. a) What is Demand Paging in Operating System? Explain  
(OR)  
b) Illustrate Job scheduling in Operating System with example.
15. a) Explain Seek Optimization strategies in operating system.  
(OR)  
b) Discuss the advantages of Access control Matrix.

**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. Explain the features Machine Independent Loader.
17. Summarize the features of Machine Dependent Loader.
18. Explain briefly Compiler Design Options
19. Explain Fixed partition multiprogramming in operating system.
20. Illustrate Page Replacement Algorithms with suitable example.
21. Explain the Operation mechanism of Moving head disk storage.