D6BCS2304 **Reg. No.....**

Name: .....

SIXTH SEMESTER B. Sc. DEGREE EXAMINATION, APRIL 2026

(Regular/Improvement/Supplementary)

COMPUTER SCIENCE

GBCS6E01T: SYSTEM SOFTWARE

Time: 2 Hours **Maximum Marks: 60**

SECTION A: Answer the following questions. Each carries *two* marks.

(Ceiling 20 marks)

1. What are the key responsibilities of the syntax analysis phase in a compiler?
2. Write a note on macro definition.
3. Describe the role of code generation in the compilation process.
4. What is its primary function of YAAC in the compilation process?
5. Define the term "overlay" in the context of program execution.
6. What is the purpose of macro expansion in the context of macro processing?
7. Describe the steps involved in the relocation process of a program.
8. Discuss the use of code optimization phase of a compiler.
9. What are system software? Give three examples.
10. Write in brief three common loader schemes used in program execution.
11. State the advantages and disadvantages of assembler.
12. Write a note on compiler construction tools.

SECTION B: Answer the following questions. Each carries *five* marks.

(Ceiling 30 marks)

13. Define the concept of static binding. Discuss its advantages and disadvantages.
14. Compare loaders and linkers.
15. Discuss the concept of passes in a compiler.
16. Explain the purpose of error correction routines in a computing system.
17. Enumerate the steps in designing an assembler.
18. Discuss the working of intermediate code generation in the compilation.
19. Describe the significance of operating systems with its applications.

SECTION C: Answer any *one* question. The question carries *ten* marks.

20. Write a detailed note on LEX.
21. What is macro programming? Explain the features of macros.

(1 × 10 = 10 Marks)