

SIXTH SEMESTER B. Sc. DEGREE EXAMINATION, APRIL 2025

(Regular/Improvement/Supplementary)

COMPUTER SCIENCE

GBCS6E01T: SYSTEM SOFTWARE

Time: 2 Hours

Maximum Marks: 60

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

(Ceiling 20 marks)

1. What is a compiler pass?
2. State the concept of macro instructions and their role in code expansion.
3. What is the relevance of symbol table management in compilers?
4. What are overlays? Explain its purpose.
5. Explain the term "relocatability" in the context of program design.
6. What is intermediate code generation?
7. Describe three common directives used in macro definitions.
8. Discuss the use of code optimization phase of a compiler.
9. Mention the use of YACC as a compiler construction tool.
10. What is a binder in the context of program linking?
11. What is the function of a macro call?
12. Compare LEX and YAAC.

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

(Ceiling 30 marks)

13. Discuss the concept of dynamic binding.
14. Differentiate between compilers and interpreters.
15. Describe the role of code generation in the compilation process.
16. Explain the purpose of loaders in a computing system. What are common loader schemes used in program execution?
17. Discuss the working of a two pass assembler.
18. Compare and contrast lexical analysis and syntax analysis.
19. Describe the significance of linkers in the software development process.

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

20. Write a detailed note on LEX.
21. Describe the sequence of steps involved in the design of a macro processor.

(1 × 10 = 10 Marks)