K25U 0285

Reg. No. : ....

Name : ....

Sixth Semester B.C.A. Degree (CBCSS – OBE – Regular/Supplementary/ Improvement) Examination, April 2025
(2019 to 2022 Admissions)
Core Course
6B18BCA : INTRODUCTION TO COMPILER

Time : 3 Hours

Max. Marks : 40

SECTION – A
(Very Short Answers)

Answer **all** the questions.

(6×1=6)

1. Define a production rule in grammar.
2. What is lexical analyzer ?
3. Write the purpose of a symbol table.
4. What is a transition diagram ?
5. Define a lexeme.
6. What is a context free grammar ?

SECTION – B
(Short Answers)

Write short notes on **any six** of the following questions.

(6×2=12)

7. What is a basic block ?
8. Differentiate between abstract syntax trees and DAGs.
9. Differentiate between syntax analysis and lexical analysis.
10. Give two examples for syntactic errors.
11. What are reductions ?
12. Write the components of an activation record.
13. What is three address code ?
14. Describe finite automata.

P.T.O.

SECTION – C
(Essay)

Answer **any four** of the following questions. (4×3=12)

15. Compare single pass and multi pass compilers.

16. How to eliminate ambiguity from a grammar ?

17. Explain the role of a Parser.

18. Describe static single assignment form in intermediate code generation.

19. Explain type conversion with an example.

20. Compare static versus dynamic allocation.

SECTION – D
(Long Essay)

Answer **any two** of the following questions. (2×5=10)

21. Explain error recovery strategies in a parser.

22. Describe the different representations of three-address code with examples.

23. Explain phases of a compiler.

24. What is control and data flow analysis ? Explain it with an example.

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