



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)

Reg. No. :

Answer **any four** of the following questions.

(4x3=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.

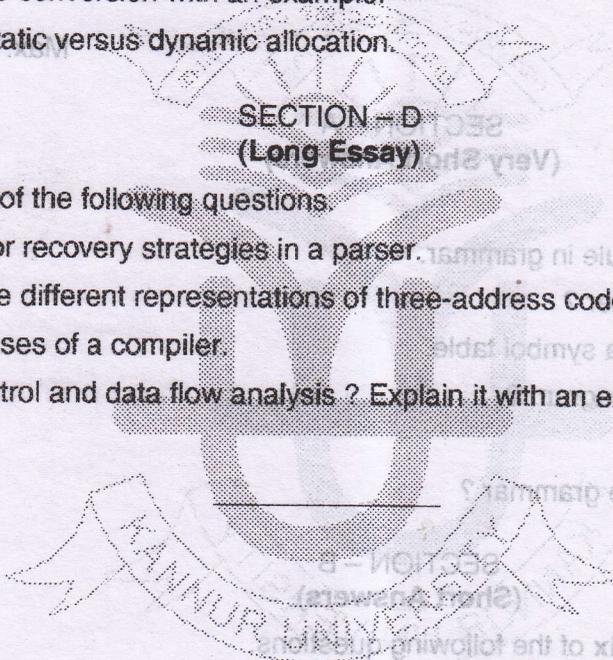
Time : 3 Hours

SECTION - D
(Long Essay)

Answer **any two** of the following questions.

(2x5=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.



(6x2=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.