

Seat No. **OCT-NOV 2025 WINTER EXAMINATION****1154 B.Tech. CBCS****Sub. Name: Compiler Construction****Sub. Code: 81546****Day and Date: Friday ,12-12-2025****Total Marks: 70****Time: 10:30 AM To 01:00 PM**

- Instructions:**
1. All questions are compulsory
 2. Assume suitable data wherever necessary and mention it boldly
 3. Figures to the right indicate full marks

Q1) Solve MCQs. [14]**[7×2=14]**

- a) Which of the following is not a tool used in compiler?
 - i. Parser Generator
 - ii. Syntax Directed Translation Engine
 - iii. Scanner Generator
 - iv. Static Checker
- b) Advantage of panic mode of error recovery is that _____.
 - i. it is simple to implement
 - ii. it never gets into an infinite loop
 - iii. both (i) and (ii)
 - iv. none of these
- c) Which is the tool for parser generator
 - i. Yacc
 - ii. Bison
 - iii. flex
 - iv. Yacc and Bison
- d) _____ is a top-down parser
 - i. Operator precedence parser
 - ii. An LALR (k) parser
 - iii. An LR (k) parser
 - iv. Recursive descent parser
- e) In flow graphs, edges represent the flow of control.
 - i. TRUE
 - ii. FALSE
- f) During _____, we select a set of variables that will reside in register at a point in the program.
 - i. register allocation
 - ii. operand allocation
 - iii. operator allocation
 - iv. register deallocation
- g) The output of a code generator is a _____.
 - i. syntax tree

- ii. target program
- iii. parse tree
- iv. source program

- Q2)** Solve any two of the following. **[14]**
[2×7=14]
a) Explain different compiler construction tools.
b) Define tokens, Patterns and lexemes with example .
c) Explain Recognition of Tokens.
- Q3)** Solve any two of the following. **[14]**
[2×7=14]
a) What is backtracking? Explain with example.
b) What is Shift-Reduce Parsing Technique? Explain with Example.
c) Define FIRST & FOLLOW with suitable Example .
- Q4)** Solve any two of the following. **[14]**
[2×7=14]
a) Construct SDD syntax tree for expressions.
b) Explain following:
 a. Syntax tree
 b. Postfix notation
 c. Three address code
c) What are Principle sources of optimization?
- Q5)** Solve any two of the following. **[14]**
[2×7=14]
a) What is peephole optimization?
b) What is code generation? Explain basic blocks & flow graphs?.
c) What are issues in design of a code generator?

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

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