QP CODE: 25020925

25020925

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE / MERCY CHANCE EXAMINATIONS, FEBRUARY 2025

Sixth Semester

B.Sc Information Technology Model III

CORE COURSE - IT6CRT06 - SYSTEM SOFTWARE

2017 Admission Onwards

EA699131

Time: 3 Hours Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Differentiate between Problem oriented and Procedure oriented Languages.
2. What is Forward reference problem?
3. Distinguish between non terminals, terminals and alphabet of a language.
4. Define the term Regular expression.
5. Discuss about Two pass translation.
6. What is the use of Dynamic pointers?
7. What is meant by scanning?
8. Define prediction making mechanism in top down parsing.
9. Define recursive descent parser.
10. Write short note on operator precedence grammars.
11. What is meant by linking?
12. Define loader.

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Explain various Program execution models.

14. Explain in detail about Declaration statement.

15. Briefly discuss about Two pass transalation with figure.

16. Explain
    a) Scope rules
    b) Control Structures

17. List out the differences between abstract syntax tree and parse tree.

18. Explain top down parsing and DFA.

19. Explain bottom up parsing with example.

20. Explain lexical and semantic expansion of macro with example.

21. What are the differences between macros and subroutines?

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. 1) Write the format of an Assembly language statement. Explain.
    2) Write in detail about the use of a Location Counter in Assembly Language translation.
    3) Write the difference between Assembly language and Machine language.

23. Write notes on
    a) Compilation of Control Structures
    b) Triples and Quadruples.

24. Explain in detail
    a) Finite State Automata (FSA)
    b) Deterministic Finite State Automata (DFA)

25. What are the steps included in the program execution? Explain in detail.

(2×15=30)