K21U 0101

Reg. No. : ....

Name : ....

VI Semester B.Sc. Degree (CBCSS – Reg./Supple./Improv.) Examination, April 2021
(2014 – 2018 Admissions)
CORE COURSE IN COMPUTER SCIENCE
6B16CSC-E04 : Compiler Design

Time : 3 Hours

Max. Marks : 40

SECTION – A

One word answer.

(8×0.5=4)

1. a) The source program is translated into the ___ *machine language.*

   b) An assembler is translator of ___ *assembly language*

   c) A simple mathematical form of a regular language is a ___ *Regular expn*

   d) A notation used for syntactic specification of a programming language is ___ *CFG*

   e) _____ is a Shift-Reduce Parsing. *LR parser operator precedence*

   f) _____ is a run time error. *Dynamic err*

   g) _____ is a token recognizers. *Canonical derivation.*

   h) The rightmost derivations are sometimes called

SECTION – B

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

(7×2=14)

2. What is a translator ?

3. What is the lexical analyzer ?

P.T.O.

4. What is parser ?

5. Explain bottom-up parsing.

6. What are the typical loop optimizations ?

7. What is LR parser ?

8. Write about different types of push down automata.

9. Write any two properties of context free language.

10. What is predictive parser ?

11. What is the principal source of optimization ?

12. What is symbol table ?

13. Explain about compiler-compliers.

14. What is the main role of lexical analyzer ?

15. Explain terminals, non-terminals and production rules.

SECTION – C

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

16. What are the main advantages of a high-level language ?

17. What is look ahead operator ?

18. Define context free grammars.

19. Describe parses trees.

20. What are the contents of the symbol table ?

21. Describe the main data structures used for the symbol tables.

22. What are semantic the errors ?

23. Describe the shift-reduce parsing.

SECTION – D

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

24. Explain different phases of a compiler.

25. Explain Non-deterministic Finite Automata.

26. What is Top-down parsing ?

27. Describe about code optimization.

28. Define and explain DFA.

29. Explain the followings.

    a) Source Program and Object Program

    b) Passes

    c) Cross compiler

    d) Tokens.

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