K17U 0341

Reg. No. : .....

Name : .....

VI Semester B.Sc. Degree (CBCSS – Regular) Examination, May 2017
(2014 Admn.)
CORE COURSE IN COMPUTER SCIENCE
(Elective)
6B16CSC: E04 : Compiler Design

Time : 3 Hours Marks : 40

SECTION – A

1. **One** word answer. **(8×0.5 = 4 Marks)**
   a) The preprocessor may expand shorthands into source language statements called _____.
   b) Lexical analyzer produces as output _____ form.
   c) _____ produce collections of routines for walking a parse tree and generating intermediate code.
   d) A grammar produces more than one parse tree for some sentence is _____.
   e) _____ is a form of bottom-up parsing in which stack holds grammar symbol and an input buffer holds the rest of the string to be parsed.
   f) _____ can built by maintaining a stack explicitly rather than implicitly through recursive calls.
   g) The construction of a parse tree for an input string beginning at the leaves and working up towards the root called _____.
   h) Writing invalid program logic that produces incorrect results when the instructions are executed called _____.

SECTION – B

Write short notes on **any seven** of the following questions. **(7×2 =14 Marks)**

2. What is compiler ?
3. Define syntax analysis.

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4. What is symbol table management ?
5. Explain backtracking.
6. What is left most derivation and right most derivation ?
7. List out the two tokens are adding are based on handle pruning.
8. What are the uses of symbol table ?
9. Write a note on topdown parsing.
10. Define SLR parsing tree.
11. What you mean by context free grammar ?

SECTION – C

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

12. Difference between syntax analysis and lexical analysis.
13. Difference between LL and LR.
14. Construct an expression grammar using shift reduce parser on input string is x*y.
15. List out the steps involve in top-down parse tree. Give example.
16. Write the implementation performs in symbol table.
17. Differentiate SLR and LALR.

SECTION – D

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

18. Explain structure of a compiler.
19. Brief note the role of lexical analyzer.
20. Explain in detail bottom up parsing. Give example.
21. Explain hierarchical structure in global symbol table and scope symbol table.
