Reg. No. :

Question Paper Code: 36082

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Sixth Semester

Information Technology

01UIT602 – COMPILER DESIGN

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. List the phases of compiler.

2. Distinguish Compiler with interpreter.

3. Define handle pruning.

4. When is a grammar said to be LL(1)?

5. Define back patching.

6. Write the methods of representing a syntax tree?

7. List the issues in the design of code generation.

8. Compare and contrast register and address descriptors.

9. What are the criteria used for code-improving transformations?

10. What is meant by cross compiler?

PART - B (5 x 16 = 80 Marks)

11. (a) Explain in detail about the compiler construction tools. (16)

Or

(b) Explain grouping of phases. (16)

12. (a) Given the following grammar $S->AS|b, A->SA|a$. Construct a SLR parsing table for the string *baab*. (16)

Or

(b) Solve the given regular expression (a|b)*abb(a|b)* into NFA and find minimized DFA. (16)

13. (a) Explain about the different type of three address statements. (16)

Or

(b) Explain the role of declaration statements in intermediate code generation. (16)

14. (a) Discuss run time storage management of a code generator. (16)

Or

(b) Describe in detail about basic blocks and flow graphs. (16)

15. (a) Why do we need code optimization? Explain the principal sources of optimization. (16)

Or

(b) Explain different storage allocation strategies. (16)

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