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| **ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27** | | | | | |
| **M.Sc- II SEMESTER** | | | | | |
| **SEMESTER EXAMINATION: APRIL 2019** | | | | | |
| **CS 8418- Compiler Design** | | | | | |
|  |  |  |  |
| **Time- 2 1/2 hrs** | |  | **Max Marks-70** | |
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|  | |  | **Answer any seven questions 7\*10=70** | |
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1.Explain the different phases of compiler and how the following statement will be translated into every phase .

Position=initial +rate\*60

2a.Describe the recognition of token in transition diagram. (6)

2b.Describe the input buffering technique in detail. (4)

3a.Find LL(1) parser for the following productions (8)

S->aABCD

A->b

B->c

C->d

D->e

3b.Write a short note on recursive descent. (2)

4.Explain LR parser for

E->BB

B->cB/dand check whether the word **ccdd** can be accepted

5a.create an operator precedence table for E->E+E/E\*E/id (6)

5b.Differentiate LR(0)and LR(1) (4)

6a.Evaluate the given expression using S-attribute definition 3\*5+4n. (6)

6b.Discuss about syntax directed translation scheme (4)

7.Explain the storage allocation strategies in runtime environment. (10)

8.Explain how flow graphs improves the efficiency of the compiler. (10)

9a.Discuss the issue involved in design of a code generator. (5)

9b..Construct a DAG for the instruction a+a\*(b-c)+(b-c)\*d. (5)