School of Computing Science and Engineering
B.Tech CSE
ETE - Jun 2023

Time : 3 Hours   Marks : 50

Sem VI - BTCS3602 - Compiler Design
Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1.	Analyze Augmented Grammar with an example.	K4 CO2 (2)
2.	How many tokens in the following statement.	K1 CO1 (2)

```
main()
{
  int x==10, y<=10;
  printf("%d%d%d Correct answer is",x);
}
```

3.	Explain the concept of left recursion and left factoring.	K3 CO3 (2)
4.	**List** out the phases of a compiler.	K2 CO2 (2)
5.	Define LR(0) items in bottom up parsing?	K4 CO3 (2)
6.	Examine shift reduse parsing with appropriate example	K6 CO3 (6)
7.	Analyze various types of top down parsing?	K4 CO2 (5)
8.	Solve First and Follow for the following grammar.	K3 CO2 (5)

S --> aABb
A --> c | ε
B --> d | ε

9.	Analyze LALR parsing table for the following grammar	K4 CO3 (8)

E --> BB
B --> cB | id

10.	Consider the grammar E->E + E|E *E|(E)| id. Show the sequence of moves made by the shift-reduce parser on the input id1+id2*id3 and determine whether the given string is accepted by the parser or not.	K5 CO2 (8)
11.	Build following assignment statement into three address code	K5 CO3 (8)

D:=(a-b)*(a-c)+(a-c)