SET A

1) Mention the input and output of all phases of compilation process (2 marks)
2) Calculate the first and follow for the given grammar- (3 marks)

   S→Bb/Cd B→aB/Ɛ C→cC/Ɛ

3) Draw DFA that accept the strings over {0,1} starting and ending with '10'. (1 mark)
4) Explain operator precedence parser (2 marks)
5) Write the SDD for a simple type declaration and draw the annotated parse tree for the declaration **float x,y,z**
6) Rewrite the grammar by removing left recursion (1 marks)

   A→ A + B | B

7) What is inherited attribute. Give example . (2 marks)
8) With explain constant propagation and constant folding. (2 marks)
9) Draw the syntax tree for the following expression. (2 marks)

   e = (a*b) + (c-d) * (a*b)

SET B

1) Calculate first and follow for the following grammar (3 marks)

   S → A
   A → aB / Ad
   B → b
   C → g

2) Draw DFA that accepts the string over {a,b} which consist of a pattern 'baba' (1 mark)
3) Explain different types of LR parser. (2 marks)
4) Mention the input and output of all phases of compilation process (2 marks)
5) Write the SDD for a simple type declaration and draw the annotated parse tree for the declaration **char a,b,c,d,e (2 marks)**
6) Rewrite the grammar by removing left recursion (1 mark)

   Z→ Z * Y | Y

7) With example loop invariant code motion. (2 marks)
8) Give the quadruple of following code (2 marks)

   a = b * - c + b * - c

SET A

1. Mention the input and output of all phases of compilation process (2 marks)
2. Calculate the first and follow for the given grammar- (3 marks)
    i. S→Bb/Cd B→aB/ε C→cC/ε
3. Draw DFA that accept the strings over {0,1} starting and ending with '10'. (1 mark)
4. Explain operator precedence parser (2 marks)
5. Write the SDD for a simple type declaration and draw the annotated parse tree for the declaration **float x,y,z**
6. Rewrite the grammar by removing left recursion (1 marks)
    i. A→ A + B | B
7. What is inherited attribute. Give example . (2 marks)
8. With explain constant propagation and constant folding. (2 marks)
9. Draw the syntax tree for the following expression. (2 marks)
    a. e = (a*b) + (c-d) * (a*b)

SET B

1. Calculate first and follow for the following grammar (3 marks)
    a. S → A
    b. A → aB / Ad
    c. B → b
    d. C → g
2. Draw DFA that accepts the string over {a,b} which consist of a pattern 'baba' (1 mark)
3. Explain different types of LR parser. (2 marks)
4. Mention the input and output of all phases of compilation process (2 marks)
5. Write the SDD for a simple type declaration and draw the annotated parse tree for the declaration **char a,b,c,d,e (2 marks)**
6. Rewrite the grammar by removing left recursion (1 mark)
    a. Z→ Z * Y | Y
7. With example loop invariant code motion. (2 marks)
8. Give the quadruple of following code (2 marks)
    a. a = b * - c + b * - c