# 8 Lecture - CS301

# **Important Mcqs**

- 1. Which of the following data structures is commonly used for converting infix expressions to postfix expressions?
  - a. Stack
  - b. Queue
  - c. Linked List
  - d. Heap
  - Answer: a. Stack

### 2. In infix notation, where are operators written in relation to their operands?

- a. Before
- b. After
- c. Between
- d. Both a and c

Answer: d. Both a and c

### 3. What is the first step in converting an infix expression to postfix notation?

- a. Scan the expression from left to right
- b. Initialize an empty stack and postfix expression
- c. Check for balanced parentheses
- d. Add operands to the postfix expression

Answer: b. Initialize an empty stack and postfix expression

# 4. Which of the following operators has the highest precedence in mathematical expressions?

- a. Multiplication
- b. Division
- c. Addition
- d. Subtraction

Answer: a. Multiplication

# 5. What is the role of a stack in converting infix to postfix notation?

- a. To keep track of operators and their precedence levels
- b. To keep track of operands and their positions
- c. To perform the necessary calculations
- d. To check for errors in the expression

Answer: a. To keep track of operators and their precedence levels

# 6. What happens to a left parenthesis when converting from infix to postfix notation?

- a. It is added to the postfix expression
- b. It is pushed onto the stack
- c. It is discarded
- d. It is popped off the stack

Answer: b. It is pushed onto the stack

### 7. How can errors be handled while converting infix to postfix notation?

- a. By checking for balanced parentheses
- b. By checking for errors during scanning
- c. By using a queue data structure

d. Both a and b

Answer: d. Both a and b

- 8. Which of the following expressions is equivalent to "a + b \* c" in postfix notation? a. "a b c \* +"
  - a. abc + b. "ab+c\*" c. "a+bc\*" d. "abc+\*" Answer: a. "abc\*+"

### 9. What is the final step in converting an infix expression to postfix notation?

- a. Pop any remaining operators off the stack and add them to the postfix expression
- b. Add operands to the postfix expression
- c. Discard the left parenthesis
- d. Push the right parenthesis onto the stack

Answer: a. Pop any remaining operators off the stack and add them to the postfix expression

### 10. Which of the following is an advantage of postfix notation over infix notation?

- a. It is easier to read and write
- b. It eliminates the need for parentheses to indicate the order of operations
- c. It is more commonly used in mathematical expressions
- d. Both a and b

Answer: b. It eliminates the need for parentheses to indicate the order of operations.