

**MCA-15 System Programming**

**SET : 1**

**Section-A**

(Very Short Answer Questions)

- 1.(i) Give two examples of interpreted languages.
- (ii) What is assembler?
- (iii) What is function of Lexer?
- (iv) Write two basic features of assembly language?
- (v) What is object file?
- (vi) What is difference between local and global symbols?
- (vii) Why assembly language is used in compilation?
- (viii) What is Finite State Automata (FSA)?
- (ix) What is ambiguous grammer?
- (x) Which type of parser is Operator Precedence Parser?

**Section-B**

(Short Answer Questions)

2. Explain Bootstrap Loader?
3. What is the use of Symbol Table?
4. Describe terminology used in Grammar of Formal Languages.
5. What is Dynamic Linking?
6. Explain the concept of Overlay?
7. Explain Parse Tree with an example.
8. Convert  $(a + b * c + d * e / f)$  into postfix notation.
9. What is Code Optimization and how it is achieved.

**Section-C**

(Long Answer Questions)

10. Explain phases of compiler?

11. Describe the concept of Relocation.
12. Explain Recursive Descent Parsing?
13. Describe Design Specifications of compiler?

**MCA-15 System Programming**

**SET : 2**

**Section-A**

(Very Short Answer Questions)

- 1.(i) What is Compiler ?
- (ii) What is interpreter ?
- (iii) What is Mnemonic Operation Codes?
- (iv) What is assembly language?
- (v) What is Relocation ?
- (vi) What is bootstrap loader ?
- (vii) What is Lexical Analysis ?
- (viii) Code generation is performed by using \_\_\_\_\_ of operand descriptors?
- (ix) What is memory allocation??
- (x) What is LR Parsing ?

**Section-B**

(Short Answer Questions)

- 2 Define compiler. Mention the different phases of a compiler.?
3. Discuss pure and impure interpreter?
4. What is scanning and parsing? Differentiate between them.
5. What is Dynamic Linking?
6. Explain the concept of Overlay?
7. Explain Parse Tree with an example.
8. What is Operator Precedence Grammars.
9. Discuss the advanced assembler directives with example.

**Section-C**

(Long Answer Questions)

- 10 Discuss different data structure used by an assembler?
11. Describe the relocating and relative loader ?

12 Differentiate between

- a) Machine dependent and machine Independent loader feature.
- b) Dynamic Linking and Dynamic loading

13. Non-Deterministic Finite Automata (NFA) With Example?