

1. What is the difference between system programming and application programming? List various types of system programs and application programs with examples.
2. What is the structure of an assembly language? Write various types of conditional and loop statements available in an assembler.
3. What is a nested macro? How it is to be dealt differently than a simple macro.
4. Explain the working of one pass assembler in detail with flowchart and example.
5. Explain the following
 - a) Lexical analysis
 - b) Code optimization techniques
6. Explain the following
 - a) Semantic analysis
 - b) Code generation
7. Explain in detail various memory management techniques.
8. Write notes on
 - a) Difference between static and dynamic linking
 - b) Direct Linking Loader
9. Explain the following
 - a) LTOrg
 - b) USING
 - c) MEND
 - d) Difference between DS & DC
 - e) Absolute loader
 - f) Interpreter
 - g) Functions of OS
 - h) Direct addressing mode
 - i) Immediate addressing
 - j) Debugger