

1. Explain the various components of the system software. Make clean machine architecture to fit in all the components.
2. What is an assembly language? How the Assembly language programming is different from high level language programming. Give advantages and disadvantages.
3. Explain one pass macro processor capable of handling macro calls within the macro definitions. Explain the stack operations with the help of suitable method.
4. How pass1 & pass2 of the assembler are different. Explain with Flowchart.
5. a) What is the difference between compiler and interpreter. When it is advisable to use a compiler or an interpreter.
b) What is the difference between front end and back end phases of a compiler? Why there is a need for an intermediate language.
6. Explain all the phases of a compiler in all the details with a suitable example. Make Charts, Tables and Diagrams wherever required.
7. Explain the following in detail
 - a) Processor management
 - b) Device Management
8. Write notes on
 - a) Absolute loaders
 - b) Relocating loaders
9. Explain the following
 - A) Five Functions of an operating System
 - B) Re-entrant code
 - C) Memory Buffer Register
 - D) Decimal Packed data format
 - E) Logical (characters) Data Format
 - F) Use of Index Registers
 - G) Literals
 - H) Pseudo-ops
 - I) RS Format
 - J) Compile and Go Loader