Q.1. Answer the following questions. 14
   (viii) Define: semantic gap.
   (ix) Define language processor.
   (x) What is assembler?
   (xi) What is symbolic operand?
   (xii) Define: program relocation.
   (xiii) Define: absolute loader.
   (xiv) What is linking?

Q.2.(a) Explain various classifications of grammars. 7
   (b) Explain Lexical analysis scanning in detail 7
   OR

Q.2.(a) Discuss ambiguity in grammatical specification and how it can be eliminated. 7
   (b) What are the advantages of assembly language? 7

Q.3.(a) Explain the design of two pass assembler. 7
   (b) Explain steps for designing a linker 7
   OR

Q.3.(b) Explain the importance of single pass assembler. 7.

Q.4.(a) Write a note on compilation of expression 7
   OR

Q.4.(a) Write a note on lexical analysis and syntactic analysis. 7
   (b) Explain memory allocation in detail. 7

Q.5. Write a note on the following. (Any two) 14
   1. Code generation
   2. Relocation and linking concepts
   3. Interpreter