Bachelor of Science (B.Sc.) (I.T.) Semester—IV (C.B.S.) Examination

COMPILER CONSTRUCTION

Paper—V

Time : Three Hours]　　　　　[Maximum Marks : 50

Note :— (1) **ALL** questions are compulsory and carry equal marks.

　　　　 (2) Draw neat and well labelled diagrams wherever necessary.

EITHER

1. (a) What is a Translator ? Differentiate between compiler and interpreter.　　　　5

   (b) Explain different phases of compiler in brief. 5

OR

   (c) What is a pass ? Explain, how we can reduce the passes.　　　　5

   (d) Write a short note on book keeping and error handling.　　　　5

EITHER

2. (a) Explain syntax and semantics of programming language. 5

   (b) What is statement ? Explain different types of statements. 5

   OR

   (c) What is Operator ? Explain various types of operators. 5

   (d) Write a short note on storage management. 5

   EITHER

3. (a) What is lexical analysis ? Explain its need. 5

   (b) How does the context free grammar define a language ? Explain. 5

   OR

   (c) Write a note on Regular Expression. 5

   (d) What is parse tree ? Explain, how parse tree can be constructed from a given derivation. 5

   EITHER

4. (a) What is parser ? Explain different parsing techniques. 5

   (b) Explain principle of source optimization. 5

   OR

   (c) Explain Machine model for code generation. 5

   (d) Explain the terms :

      (i) Loop unrolling

      (ii) Loop jamming. 5

5. (a) What is Book Keeping ? 2½

   (b) Explain static storage allocation. 2½

   (c) Write a short note on ambiguity. 2½

   (d) Write short note on precedence function. 2½