**RAJ KUMAR GOEL INSTITUTE OF TECHNOLOGY & MANAGEMENT, GZB**

**FIRST SESSIONAL TEST 2017-18 ( Odd Semester)**

**Roll No.:**  **Subject Name: Principle of programming Language**

**Year/Branch/Sec**: **3RD/CS+IT/A+B+C Subject Code:** **NCS-503**

**Max Time: 1.5 hrs Max Marks: 50**

**SECTION-A**

**Q.1 Attempt all parts, each part carries equal marks (2 X 5)**

a) Differentiate between compiler and interpreter.

b) Examine the term programming paradigm.

c) Give regular expression for c identifires.

d) Define static ambiguity.

e) Illustarte the term Loader.

**SECTION-B**

**Note: Attempt any five questions from this section. (5 X 5)**

2. Analyse the attributes of good programming language and external influencing factors of

 programming language .

3. Compare the characterstics of C and LISP.

4. Given the context free grammar

 S->0S0/1S1/0/1

 Derive the derivation tree for the string 0110110.

5. Design a LISP program to print the corresponding name of week day for the input number.

6. Convert this Infix notation to other notation and draw the syntax tree and BNF (BACKUS- NAUR-FORM).

 a + b \* c + d / f + g

7. Draw DFA for the following regular expression (a+b)\*abb.

8. Discuss Chomsky hierarchy of grammar in detail.

9. Illustrate the use of variable,constant and literals with example for a language.

**SECTION-C**

**Note: Attempt any two questions from this section. (7.5 X 2)**

10. Discuss the various stages of translations in detail.

11. Illustrate the syntactic element and crietria of a programming language.

12. Examine the effect of programming environment on language design.