CODE NO : NR 310505 N6

2005 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

III B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS
PRINCIPLES OF PROGRAMING LANGUAGE
(COMPUTER SCIENCE & ENGINEERING AND INFORMATION TECHNOLOGY)

NOVEMBER 2005

TIME – 3 HOUR
MARK – 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the features of object oriented programming.

(b) Write BNF description for arithmetic expressions which implements the Operator hierarchy of any imperative language. *[6+10]*

2. Describe the various control statements in programming languages. *[16]*

3. (a) Explain elementary Data types in Programming languages.

(b) What are the advantages and disadvantages of language supporting type Coercion (between integer and real) for numeric calculations such as 8+6.38. *[6+10]*

4. Write short notes on the following.

(a) Block

(b) Dangling reference

(c) Dynamic scoping

(d) Extent *[4*4]*

5. Discuss the following and compare the merits and demerits of each:

(a) call-by-value.

(b) call-by-reference.

(c) call-by-name.

(d) call-by-value result. *[4*4]*

6. (a) Give an abstract specification of a queue.

(b) Explain the design issues of exception handling. *[8+8]*

7. Discuss how producer-consumer problem is solved in:

(a) concurrent-Pascal

(b) ADA. *[8+8]*

8. What is meant by logic programming? What are the applications of it? Explain logic programming in PROLOG with examples. *[16]*