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BE-IV/6(A)

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COMPUTER ENGINEERING

COURSE NO. COM 402

(Principles of Programming Language)

Time Allowed: Hours

Maximum Marks – 100

Note: Attempt any five questions. Each question carries 20

1. (a) Give the definition of data structure and its implication while writing the computer program.
(b) What do you mean by abstract data type? Explain with suitable examples. (10, 10)
2. (a) Explain the terms firmware and virtual computer.
(b) Explain the difference between assignment and initialization statements with the help of program. (10, 10)
3. (a) What are common exceptions? How these are handled by exception handlers?
(b) What are coroutines? Explain their implementation using example. (10, 10)

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(2)

4. (a) Explain the semantics for the following three notations:

(i) Prefix

(ii) Infix

(iii) Postfix

(15)

(b) What do you mean by parameter transmission? (5)

What is object oriented programming? Explain the different characteristics of OOP with an example in each case.

(a) Write a program in C++ to overload unary operator.

(b) What do you mean by stack based storage management? Discuss its applications and advantages. (10, 10)

(a) Explain various stages in translation. (15)

(b) What is the importance of syntax and semantics? (5)

(a) What is type conversion? Is it possible in LISP? Justify your answer. (10)

(b) Write short notes on:

(i) Pointers and files

(ii) Interactive environment. (10)
