Roll No._____

4E4165

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4E4165

B.Tech. IV-Sem (Main & Back) Exam; June-July 2016
Computer Science & Engineering
4CS6A Principles of Programming Languages
Common with CS, IT

Time: 3 Hours

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Maximum Marks: 80
Min. Passing Marks (Main & Back): 26
Min. Passing Marks (Old Back): 24

Instructions to Candidates:-

Attempt any *five* questions, selecting one question from each unit. All Questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly.

Units of quantities used/ calculated must be stated clearly.

Use of following supporting material is permitted during examination.

(Mentioned in form No.205)

1. NIL _____   2. NIL _____

UNIT-I

Q.1 (a) What is need of Programming Language? And also explain types of programming paradigms? [8]

(b) What are main features of good programming language? [8]

OR

Q.1 (a) Define Binding and Binding time? What are the different types of binding in respect of programming? [8]

(b) What is compiler? Explain phases of compilers for given expression

$$R = K + T * 30$$

[8]

[4E4165

[6760]

UNIT-II

Q 2 (a) Explain type checking and type conversion with suitable Example? [8]

(b) What are files? Explain various types of files? [8]

OR

Q.2 (a) Explain the Implementation structure and union? [8]

(b) What is difference between array and vector? Explain multi-dimensional Array? [8]

UNIT-III

Q.3 (a) What is Exception handling? Explain difference between Exception and Compilation Error? [8]

(b) What is SUB-Program? Explain difference between simple and recursive SUB Program? [8]

OR

Q.3 (a) What are the actual and formal parameters? Explain with suitable example? [8]

(b) What is sequence control? Example sequence control for recursive SUB Program? [8]

UNIT-IV

Q.4 (a) What do you mean by static and dynamic scope of a data member? [8]

(b) Explain various parameters transmission:

(i) Call by value

(ii) Call by reference

OR [8]

Q.4 (a) What is difference between local and shared data? [8]

(b) Write short notes ON Tasks?

UNIT-V

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[8]

Q.5 (a) Explain static and stack- Based storage management?

[8]

(b) Explain storage management fixed and variable size heap data element?

OR

[4×4=16]

Q.5 Explain with example (ANY FOUR):-

(a) Garbage Collection

(b) Type definition

(c) Abstract Data type

(d) Information hiding

(e) ENCAPSULATION

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