



May - June - 2011

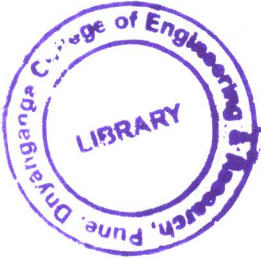
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**T.E. (Computer) (Semester – II) (New) Examination, 2011
PRINCIPLES OF PROGRAMMING LANGUAGES
(2008 Pattern)**

Time : 3 Hours

Max. Marks : 100

- Instructions :**
- 1) Answer **any three** questions from **each** Section.
 - 2) Answers to these Sections should be written in **separate** books.
 - 3) **Neat** diagrams must be drawn **whenever** necessary.
 - 4) Figures to the **right** indicate **full** marks.
 - 5) Assume suitable data if **necessary**.



SECTION – I

1. a) Explain following characteristics of a good programming language. 6
 - 1) Orthogonality
 - 2) Uniformity
 - 3) Implementability.
- b) With suitable example explain Implicit and Explicit Type conversion. 6
- c) What are different classifications of actual parameters ? 6

OR

2. a) Explain significance of readability of a programming language. What is the impact of user defined operator overloading on the readability of a program ? 6
- b) State and explain challenges of programming language design. 8
- c) Differentiate between structures and non structured data type. 4
3. a) What are design principles for procedural programming specification ? 6
- b) What are undesirable characteristics of imperative programming ? 6
- c) With suitable diagram demonstrate the execution steps for imperative programming. 4

OR

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4. a) Write short note on Block Oriented Structured Programming. 4
b) With suitable example demonstrate the use of pointer in PASCAL. 4
c) With suitable example, demonstrate how nested procedures and functions acts as a efficient program design construct. 8
5. a) What are benefits of the object oriented model that have led to its increase in popularity ? 8
b) With suitable examples, demonstrate the role of various pre-defined exception classes in JAVA. 8
- OR
6. a) Compare Java Applications and Java Applets. Draw Typical Applet life Cycle. 6
b) Explain the concept of multithreading with respect to Java. 6
c) Compare Java Abstract class and Java interface in Java. 4

SECTION – II

7. a) What is the base class of NET Framework ? What is importance of assemblies ?
What are different languages supported by NET for development ? 8
b) Explain Value type and Reference type variable with respect to C#. 6
c) Describe following public methods of C# 4
1) bool Equals ()
2) int GetHashCode ()
- OR
8. a) Describe the following significant features supported by C# language
1) Generics
2) Strong Data Typing
3) Namespaces
4) Attributes
5) Delegates. 10
b) State and explain most important highlights of C# language. 8

