

Total No. of Questions : 12]

Nov-Dec-2012

SEAT No. :

P837

[Total No. of Pages : 3

[4263] - 357

**T.E. (Information Technology)
PROGRAMMING PARADIGMS
(2008 Pattern) (Semester - II)**

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) *Answers to the two sections should be written in separate books.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Your answers will be valued as a whole.*
- 5) *Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.*

SECTION - I

- Q1)** a) Explain key features of various programming paradigms. [8]
- b) Explain properties of following data types. [8]
- i) Structured
 - ii) Derived
 - iii) Scalar
 - iv) Composite

OR

- Q2)** a) What are the attributes of good programming language? What are the major applications area and corresponding programming language ? [8]
- b) Explain type conversion and Coercion. [8]
- Q3)** a) Explain following parameter passing methods : [8]
- i) Call by value and
 - ii) Call by reference
- b) What do you mean by exception ? Explain with eg. With respect to C++ and JAVA. [8]

OR

P.T.O.

- Q4)** a) Define following terms wrt to variables. [8]
- i) Lifetime
 - ii) Scope
 - iii) Static scope
 - iv) Dynamic Scope
- b) What are the elements of procedure declaration? [4]
- c) Explain the importance of local and non-local variables. [4]

- Q5)** a) Explain the concept of Multithreading? Explain the same with respect to JAVA with suitable example. [10]
- b) Explain the Applet Life cycle with eg. [8]

OR

- Q6)** Write short notes on following : [18]
- a) Inheritance in C++
 - b) Layout Manager in JAVA
 - c) Significance of access specifiers in JAVA

SECTION - II

- Q7)** a) Explain rules, facts and queries in Prolog with example. [8]
- b) Explain the approaches for garbage collection in LISP. [8]

OR

- Q8)** a) Explain distributed operating system organization. [8]
- b) Explain parallel programming languages. [8]

- Q9)** a) What are the primitives required for data flow notation? [4]
- b) Explain the methods for node firing. [4]
- c) What are advantages and disadvantages of relational database model. [4]
- d) Write short note on Windows programming. [4]

OR

- Nov-Dec-2022
- Q10)** a) Enlist and explain the 8 socket primitives required for network connection. [8]
b) Write down the steps for creating socket based application in Java. [8]

- Q11)** a) Explain design principles of network system. [8]
b) Explain design principles Data flow programming. [8]
c) Explain the concept of links in HTML document [2]

OR

- Q12)** Write short notes on : [18]
a) Parallel operating systems
b) Design principles of Database Programming
c) Flynn's Classification.

