[4758] - 105

T.E. (Information Technology)
PROGRAMMING PARADIGMS
(2008 Pattern) (Semester -II) (314450)

Time :3 Hours]   *[Max. Marks : 100*

Instructions to the candidates:

1) *Answers Question1 or Q2, Q3 or Q4, Q5 or Q6 from Section I and Question 7 or Q8, Q9 or Q10, Q11 or Q12 from Section II.*
2) *Answers to the two sections should be written in separate answer -books.*
3) *Neat diagrams must be drawn wherever necessary.*
4) *Figures to the right indicate full marks.*
5) *Assume suitable data, if necessary.*

SECTION - I

Q1) a) What do you mean by Dynamic Type Checking? Enlist advantages and disadvantages of Dynamic Type Checking. **[8]**

   b) What are the attributes of Good Programming Language? **[8]**

OR

Q2) a) Define the term "Binding" with suitable example. **[8]**

   b) Explain the concept of coercion with suitable example. **[8]**

Q3) a) What are different problems occurred at the time of expression evaluation? Explain it with suitable example. **[10]**

   b) Explain co-routines and its implementation. **[8]**

OR

Q4) a) Explain following terms with suitable examples. **[10]**

      i)   Exception and Exception handler

      ii)   Build in Exception

  b) State and explain referencing environment with suitable example. **[8]**

Q5) a) Explain concept of inheritance with respect to JAVA and C++ in details. **[8]**

  b) Explain Applet life cycle. **[8]**

<div align="center">OR</div>

Q6) a) Explain the concept of multithreading with suitable examples. **[8]**

  b) Differentiate Procedure Oriented Programming Language and Object Oriented Programming Language. **[8]**

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SECTION- II

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Q7) a) Explain concept of recursion in PROLOG with suitable example. **[8]**

  b) What do you mean by function languages? What are the applications of function languages? **[8]**

<div align="center">OR</div>

Q8) a) What are the applications of logic programming? Explain facility and deficiencies provided by PROLOG. **[8]**

  b) Compare: Unification and Backtracking. **[8]**

Q9) a) What do you mean by parallel programming? Why do use parallel programming? **[8]**

  b) Explain different classification of Computer Architecture. **[8]**

<div align="center">OR</div>

*Q10)*a) What is the role of compilers in parallel programming? **[8]**

b) Explain the concepts of mapping with their types. **[8]**

*Q11)*a) Explain concept of data definition language and data manipulation language. **[8]**

b) Write short notes on: **[10]**

i) Windows Programming using Visual Basic

ii) Socket Programming using JAVA.

OR

*Q12)*a) Write short notes on: **[10]**

i) Links in HTML

ii) Components of URL

b) Explain Database Programming design principles. **[8]**

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