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

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

Instructions to the candidates:

  1) Answers Question 1 or 2, 3 or 4 and 5 or 6 from Section I and Question 7 or 8, 9 or 10 and 11 or 12 from Section II.

  2) Answers to the two sections should be written in separate answer - 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

Q1) a) Why there is a need to study programming languages explain in detail. **[8]**

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

OR

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

b) Explain in detail procedural and functional programming paradigms? **[8]**

Q3) a) Explain in detail **[10]**

  i)   Static scope rule.

  ii) Dynamic scope rule.

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]**

OR

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

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

SECTION - II

Q7) a) i) Explain life cycle of applet with proper example. **[4]**

ii) Differentiate Applet and Application. **[4]**

iii) Differentiate AWT and SWING. **[4]**

b) What do you mean by function languages? What are the applications of function languages? **[6]**

OR

Q8) a) What are the applications of logic programming? Explain facility and deficiencies provided by PROLOG. **[10]**

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

Q9) a) Explain message passing and shared address space. **[8]**

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

OR

*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 note on: **[8]**

    i) Windows Programming using Visual Basic.

    ii) Socket Programming using JAVA.

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

*Q12)*a) Write short notes on: **[8]**

    i) Links in HTML.

    ii) Components of URL.

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

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