Nov-Dec-2012

Total No. of Questions : 12]

SEAT No. :

P837

[Total No. of Pages : 3

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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

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.

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