Total No. of Questions : 12]

SEAT No. :

P2464

[Total No. of Pages : 2

[5153]- 98
T.E. (Information Technology)
PROGRAMMING PARADIGMS
(2008 Pattern) (Semester - II) (314450)

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

Instructions to 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 wherever necessary.***
4) ***Figures to the right indicate full marks.***
5) ***Assume suitable data if necessary.***

SECTION - I

Q1) a) Define data object and its life time of? Explain both programmer and system defined data object. **[8]**

b) Explain how cost of programming languages need to measured. **[8]**

OR

Q2) a) Explain procedural and logic based programming paradigms in detail. **[8]**

b) Explain with example the content of code segment and activation record at run time. **[8]**

Q3) a) What are the different problems occurred at the time of expression evaluation? Explain it with suitable example. **[8]**

b) Explain properties of following data types. **[8]**

i) Structured ii) Derived

OR

Q4) a) Explain in detail with example Static scope and Dynamic Scope. **[8]**

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

Q5) a) Define the term multithreading? Explain the with respect to java and C++. **[10]**

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

OR

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Q6) a) Differentiate C++ and Java. And write features supported by java but not be C++. **[10]**

b) Explain how the of sequence control is done in recursive subprograms. **[8]**

SECTION - II

Q7) a) What is garbage collection? How it is done in LISP. **[8]**

b) What is Unification and Resolution? Explain with respect to Logic programming? **[8]**

OR

Q8) a) Define the term cuts? How to use cuts in programming. **[8]**

b) Define different synchronization mechanisms. **[8]**

Q9) a) Explain concept of mapping with its examples. **[8]**

b) Define following terms with respect to functional programming. **[8]**

i) Ambiguity ii) Free and bound identifier

iii) Reduction

OR

Q10)a) Explain shared memory and message passing parallelism. **[8]**

b) Explain the design principles of parallel programming. **[8]**

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

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

i) Windows Programming using Visual Basic.

ii) Socket Programming using JAVA.

OR

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

i) Internet Programming

ii) parallel Compilers

b) Explain design principles Data flow programming and explain different scemes used in data flow computation. **[8]**