

Total No. of Questions : 12]

SEAT No. :

P1151

[Total No. of Pages : 2

[4163] - 357

May - June 2012

T.E. (Information Technology)
PROGRAMMING PARADIGMS
(2008 Pattern) (Sem. - 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) Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.
- 5) Assume suitable data, if necessary.

SECTION - I

Q1) a) State and explain any five influencing factors which play a major role in programming languages? [10]

b) What are the feasible cost measures in cost evaluation of programming language? [8]

OR

Q2) a) Explain Orthogonality a good attribute of programming language. [4]

b) Compare Translators and Software-Simulated Computers. [6]

c) What is binding? Describe the binding time at execution and translation. [8]

Q3) a) Explain any two parameter passing methods with example. [8]

b) Explain and compare Programme-controlled and System-controlled Storage management. [8]

OR

Q4) a) Explain the concept of Prime programs. [6]

b) Explain with example garbage collection in LISP. How the reference count technique helps to recover the memory. [10]

Q5) a) State and explain the desirable characteristics for object-oriented programming model? [10]

b) Define messages in object-oriented system. Explain three categories of messages. [6]

OR

P.T.O.

- Q6) a) Explain with example the structure of thread class and its client class. [4]
b) State methods used in the thread class. [4]
c) Write the features not supported by JAVA but supported by C++. (any 8 points) [8]

SECTION - II

- Q7) a) Draw a cell diagram of list ((ab) (c) (d f)). [4]
b) Write output for [4]
• append ('(A B) C) '(D (E F))
• (+ (car (cdr (list 2 3))) 4)
c) Write features of logic programming language model. [10]

OR

- Q8) a) Explain the two approaches used to prove the Goal in Prolog system. [8]
b) Write short note on Lambda Calculus. [5]
c) Write the mathematical properties of functional programming language. [5]

- Q9) a) State and explain five different types of dependencies in the process of analysis of parallelism. [10]
b) Explain the principle of parallel programming language. [6]

OR

- Q10) a) Describe three basic organizations used in the design of multiprocessor operating systems. [8]
b) Explain message passing versus shared address space. [8]

- Q11) a) Describe design principles of Data flow Programming. [8]
b) State and explain the components of SQL as a Database Programming language. [8]

OR

- Q12) a) What is socket? State different socket primitives. [6]
b) Explain different types of socket used in network programming. [6]
c) Explain the components of URL with example. [4]
