Total No. of Questions :12]

SEAT No. :

P2948

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T. E. (Computer Engg.)

PRINCIPLES OF PROGRAMMING LANGUAGES

(Semester - II) (2008 Pattern)

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

Instructions to the candidates:

1) ***Answer the Q.1 OR Q.2 and Q.3 OR Q.4 and Q.5 OR Q.6 and Q.7 OR Q.8. Q.9 OR Q10, Q11 OR Q12.***
2) ***Neat diagram must be drawn whenever necessary.***
3) ***Figures to the right side indicate full marks.***
4) ***Assume suitable data if necessary.***

SECTION - I

Q1) a) What are characteristics of good programming language? **[8]**

b) Explain role of programming languages? **[8]**

OR

Q2) a) Explain with examples different parameter passing methods. **[8]**

b) What is type checking and binding and binding times. **[8]**

Q3) a) What are desirable and undesirable characteristics of procedural programming. **[8]**

b) What are the design principles of procedure programming. **[8]**

OR

P.T.O.

Q4) a) Explain the structure of program in PASCAL. **[8]**

b) Explain procedures and functions with example in PASCAL. **[8]**

Q5) a) Explain access specifies in Java with examples. **[8]**

b) What is Applet life cycle of applet. **[10]**

OR

Q6) a) What is exception and explain with example the types of exception. **[8]**

b) What is JDBC and JDBC drivers? Write simple program to display records from database. **[10]**

SECTION - II

Q7) a) Explain the inheritance, interface and sealed class in C#. **[8]**

b) Describe the structure of C# program. **[8]**

OR

Q8) a) Draw and explain various component of NET framework. **[8]**

b) Explain delegates and event handlers in C#. **[8]**

Q9) a) Explain backtracking and searching techniques. **[8]**

b) Explain resolution and unification with examples. **[8]**

OR

Q10)a) i) Explain fact, rule and goal statements. **[8]**

ii) What is cut operator in PROLOG?

b) Explain applications of logic programming. **[8]**

Q11)a) What is ambiguity, free and bound identifiers, reductions in lambda calculus. **[8]**

b) Explain the list manipulation functions. **[10]**

OR

Q12)a) What are different applications of Functional Programming? **[10]**

b) Write a program to calculate factorial in LISP. **[8]**

i) with loop

ii) without loop (recursion)