Total No. of Questions : 4]

SEAT No. :

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[6008]-231

S.E. (Computer Engineering) (Insem)
Principles of Programming Languages
(2019 Pattern) (Semester-II) (210255)

Time : 1 Hour]   *[Max. Marks : 30*

Instructions to the candidates :
1) *Answer Q1 or Q2, and Q3 or Q4.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right indicate full marks.*

Q1) a) Illustrate the Impact of machine architecture on programming languages.

     i) Hardware   ii) Firmware   iii) Software   **[5]**

   b) List the different classes of binding times. Explain with suitable example.

                                                            [5]

   c) Explain any two language paradigms with example.   **[5]**

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

Q2) a) List attributes of a good programming language and explain any two in detail.   **[5]**

   b) What are the different ways by which computer might be constructed. Explain with example of web application.   **[5]**

   c) Consider the following program code and identify the semantic elements of the programming language along with type of binding. Describe the same.

```
# include < stdio.h >

main( )

{

int x,y;
```

P.T.O

```
scan f ("% d % d", & x, & y);
{ int temp;
temp = x;
x = y;
y = temp;
}
 print f ("%d % d", x,y) ;
}                                                              [5]
```

Q3) a) Describe ordinal types: enumeration with 'C++' example.   **[5]**

b) What are different parameters passing methods in programming languages with example.   **[5]**

c) What are the different primitive data types? Explain with the examples of syntax, size and ranges.   **[5]**

OR

Q4) a) Explain following concepts with example: **[5]**

   i) Overloaded unary operator

   ii) Short circuit evaluation

b) What are subprograms? List and explain the design issues for subprograms.   **[5]**

c) Write short note on:

   i) Mixed mode Assignment

   ii) Unconditional branching.   **[5]**

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