

Total No. of Questions : 4]

SEAT No. :

PA-4979

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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]

OR

- 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;
```

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```
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]

