

Q1} Tabulate the basic data types in python- write their description, values and representation.

| Basic data types | Description   | Values                 | Representation |
|------------------|---|------------------------|----------------|
| Boolean          | represents two values of logic and associated with conditional statements | True and False         | bool           |
| Integer          | positive and negative whole numbers                                       | set of all integers, Z | int            |
| Complex          | contains real and imaginary part (a+ib)                                   | set of complex numbers | complex        |
| Float            | real numbers  | floating point numbers | float          |
| String           | all strings or characters enclosed between single or double quotes        | sequence of characters | str            |

Q2} What does ":" mean while accessing the subset of the array?

The : operator slices a part from a sequence object such as list, tuple or string. It takes two arguments. First is the index of the start of slice and second is index of end of slice. Both operands are optional. If the first operand is omitted, it is 0 by default. If the second is omitted, it is set to the end of the sequence.

Example:

```
a=[1,2,3,4,5,6,7]
```

```
a[1:3]
```

```
[2, 3]
```

MCQ1} select an incorrect statement regarding coercing object.

- a. Convert the data type of an object to another.
- b. Syntax: datatype(object)
- c. For identifying object datatype.
- d. Changes can be stored in same variable or in different variable.

MCQ2} How can you concatenate the strings "data" and "science" with a hyphen(-) between them? Choose the correct option.

- 1. "data".join("science")
- 2. "-".join(["data", "science"])
- 3. "data" + "-" + "science"
- 4. None of the above.

- a. 1 and 2
- b. 2 and 3
- c. 1 and 3
- d. 4