Duration: 2.5 Hours   H210NPP   Marks:- 75

Note:- 1) All questions are compulsory
       2) All questions carry equal marks
       3) Figures to the right indicate maximum marks.

Q.1 Attempt any four of the following : (any 4)   (20 M)

1) What is Python? Explain its features.

2) Explain input() function with example.

3) Explain for loop with example.

4) Write short note on python comments.

5) What is variable? Write the rules for declaring variable.

6) Write a program on following pattern:-

```
1
2 2
3 3 3
4 4 4 4
```

Q.2) Attempt any four of the following : (any 4)   (20 M)

1) What are logical operators? Explain with example.

2) What is Numpy array? Explain with example.

3) What are identity operators ? Explain with example.

4) What is built in function ? list ant 5 built in functions.

5) Explain insertion , search and deletion operators of array with example.

6) Write a python program to sum all the items in a list using function.

Q.3) Attempt any four of the following : (any 4)   (20 M)

1) What is list? Explain with example

2) What is dictionary? Explain with example.

3) Explain the different tuple operations with example.

4) Write the difference between list and tuple.

5) What is String? Explain with example.

6) Write a program of String which join 2 or more Strings into a single one.

Q.4) Attempt any three of the following   (15 M)

1) Write a program to check whether the given number is even or not.

2) Write a program to find the area of a triangle whose sides are given.

3) Write a program to find average of three numbers using function.

4) Explain any 5 pre-defined math functions.

5) Write a program to print greatest number among 3 given numbers.

6) Write short note on String methods.

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