

# python - I

S0131 / S9053 PROGRAMMING WITH PYTHON I.

**Q. P. Code: 12208**

**(Time: 2½ Hours)**

**[Total Marks: 75]**

- N.B.
- 1) All questions are compulsory.
  - 2) Figures to the right indicate marks.
  - 3) Illustrations, in-depth answers and diagrams will be appreciated.
  - 4) Mixing of sub-questions is not allowed.
  - 5) Assume suitable data wherever required.

**Q. 1 Attempt All(Each of 5Marks)**

**(15M)**

**(a) Multiple Choice Questions**

1. <, >, <= are \_\_\_\_\_ operators  
i) Arithmetic ii) Logical iii) Relational ☒ iv) Assignment
2. Which of the following function converts a string to all lowercase?  
☒ lower() ii) isdecimal() iii) swapcase() iv) title()
3. Python is \_\_\_\_\_ language.  
i) Compiled ii) Procedure ☒ iii) Interpreted. iv) Non-Interactive
4. What is the output of len(["Hello", "world", "Python"])?  
i) 1 ii) 2 ☒ iii) 3 iv) 4
5. What is "Hello".replace("l", "e")  
ii) Heeeo ii) Hlllo ☒ iii) Heleo iv) None of these

**(b) Fill in the blanks**

1. What is the data type of the below object \_\_\_\_\_ ?  
T = ("PY", 22, 'hello', 1).
2. Ternary operator (?) is used for \_\_\_\_\_
3. The term IDLE stands for \_\_\_\_\_
4. To use in-built mathematical functions we need to import \_\_\_\_\_ module.
5. An instance of a class is called as object

**(c) Write answers for the following in few lines**

1. Define Assignment statement.
2. Write the use of del statement.
3. What is the output when following statement is executed \_\_\_\_\_ ?  
>>>"a"+"b"
4. Define Expression statement.
5. Explain the use of "break" statement.

- Q. 2 Attempt the following (Any THREE) (15M)**
- (a) What is the difference between simple and compound statements? Explain with example.
  - (b) What is Datatype? What are the rules and conventions for declaring a variable?
  - (c) Explain any five arithmetic operators in Python.
  - (d) Write a short note on tuple.
  - (e) Define Function. Write the syntax to define function. Give example of function definition.
  - (f) Write a program to calculate Simple Interest. Take Principal amount, rate of interest and number of years from the user. (Hint: Simple Interest = (Principal amount \* Rate of interest \* Number of years) / 100.)
- Q. 3 Attempt the following (Any THREE) (15M)**
- (a) How do we implement if, elif, else condition? Explain with an example.
  - (b) Discuss the difference between local and global variable.
  - (c) What is actual and formal parameter? Explain the difference along with an example.
  - (d) Explain continue statement.
  - (e) What is nested while loop? Explain with example.
  - (f) Write a program to print reverse of a number. Take input from user.
- Q. 4 Attempt the following (Any THREE) (Each of 5Marks) (15M)**
- (a) Discuss Anonymous function.
  - (b) Explain "Dictionary" concept.
  - (c) Define Built-in functions. List any 4 built-in functions. Explain dir() functions.
  - (d) Write a program to create an anonymous function to calculate cube of a number.
  - (e) What is List? Explain with example.
  - (f) Write a short note on class.
- Q. 5 Attempt the following (Any THREE) (Each of 5Marks) (15M)**
- (a) Discuss Operator Precedence along with an example.
  - (b) Explain Time module and its function.
  - (c) What is comment? Why we need it? How do we implement it?
  - (d) Write a python program to take a string from user and count number of vowel present in it.
  - (e) Explain for loop with example.
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