

(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.

Q. 1 Attempt All(Each of 5Marks)**(15M)****(a) Multiple Choice Questions****(5M)**

1. 53%24 will result in _____.

- a) 5 b) 2.20833333 c) 2.20 d) 2

2. IDLE in python stands for _____.

- a) integral design language environment
 b) internet development environment
 c) integrated design environment
 d) integrated development environment

3. Python is _____ language.

- a) Compiled b) Procedure c) Interpreted d) Non-Interactive

4. The output of '123'+4 in python is _____.

- a) 1234 b) 4 c) 127 d) error

5. _____ statement is used when a statement is required syntactically but you do not want any command or code to execute.

- a) pass b) break c) continue d) for

(b) Fill in the blanks**(5M)**

Logical , Dictionary, (int) x, >>, func, Bitwise, Class, >>>, def, tuple, int(x), <<,

- _____ Converts 'x' into integer data type.
- In python, prompt is shown using _____ symbol.
- _____ Keyword is used to define a function.
- &&, |, ^ are _____ operators.
- _____ is not a core data type.

(c) Short Answers in 1-2 sentences**(5M)**

- How do we represent empty list?
- What is the use of del statement?
- What is comment in python programming?
- Give examples of assignment operators.
- Define Expression statement.

Q. 2 Attempt the following (Any THREE)**(15M)**

- (a) What is the use of following arithmetic operators?
 i) * ii) // iii) / iv) % v) **
- (b) Write a short note on IDLE.
- (c) Describe any 5 features of Python language.
- (d) What is the use of Math module? Write any 4 functions of it.

- (e) Discuss "list" data type in regards with the following points:
 - i) Declaration and initialization of variable of "list" data type
 - ii) Displaying second element of a list.
 - iii) Delete third element of a list.
 - iv) Display all elements starting from second position in a list.
 - v) Repeat list twice and display it.
- (f) Write a program to accept percentage from user. If percentage is < 35 then print "Fail". If percentage >=35 and < 60 print "second class". If percentage >=60 and < 75 print "First Class". If percentage >=75 print "Distinction".

Q. 3 Attempt the following (Any THREE) (15M)

- (a) What is the use of if - elif condition? Explain with example.
- (b) Explain following points regarding function:
 - i) Definition /Use of function
 - ii) Syntax of function definition
 - iii) Example of function definition
- (c) Illustrate the use of range () in python along with an example.
- (d) Discuss the difference between local and global variables.
- (e) When do we use continue statement? Explain with example.
- (f) Write a python program to display prime numbers up to number 'n'. Accept value of 'n' from user.

Q. 4 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- (a) What is List Comprehension? Give example.
- (b) Give any five methods of String. Explain with example.
- (c) Discuss Anonymous function.
- (d) Describe the following terms of Object Oriented Programming. Give example.
 - i) Class
 - ii) Object
- (e) Explain any five methods of tuples with example.
- (f) Write a program in python to create a function using lambda to find square of a number.

Q. 5 Attempt the following (Any THREE) (Each of 5Marks) (15M)

- (a) What is the role of indentation in python? Provide example to support your answer.
- (b) Explain "for" loop using following points:
 - i) Use
 - ii) Syntax
 - iii) Example
- (c) Describe any five methods of Dictionary with example.
- (d) What is the difference between simple and compound statements? Explain with example.
- (e) Write a python program to print table of a number. Take number as an input from user.
