



**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Programme 5th Semester Examination, 2021-22

**CMAGDSE01T-COMPUTER APPLICATION (DSE1)**

**PROGRAMMING WITH PYTHON**

Time Allotted: 2 Hours

Full Marks: 50

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

**GROUP-A**

1. Answer any *five* questions from the following: 2×5 = 10
- (a) Define python programming language.
  - (b) What is python interpreter?
  - (c) What is variable and keywords?
  - (d) What is continue statement?
  - (e) What do you mean by dynamically typed language?
  - (f) What is the difference between list and tuple?
  - (g) What are mutable and immutable data types?
  - (h) Explain any two methods of the list.

**GROUP-B**

**Answer any *five* questions from the following** 8×5 = 40

2. (a) Write a python program to find whether a given number is Armstrong number or not. 4+2+2
- (b) What is the use of str.upper() and str.lower() functions in string?
  - (c) Explain call by value and call by reference in python.
3. (a) Mention benefits of using python. 2+3+2+1
- (b) Write a python program to find the area of a triangle.
  - (c) What is nested lists? Explain with example.
  - (d) What is bitwise operator?

4. (a) \* 4+2+2  
\* \*  
\* \* \*  
\* \* \* \*  
\* \* \* \* \*

Print the above pattern using python language.

- (b) What is set?
- (c) What is default argument?

5. (a) Write down the difference between error and exception. 2+2+2+2  
(b) Explain cloning list.  
(c) What is the function of range() function?  
(d) What are the standard data types in python?

6. (a) Write a python program to implement insertion sort. 3+2+3  
(b) What is the negative indexing in lists?  
(c) Explain the following methods of dictionaries:  
(i) items (ii) pop

7. (a) Write a python program to implement linear search. 3+3+2  
(b) How to compare string in python?  
(c) What is slicing in Python?

8. (a) Write a python program to find factorial of a given number using recursion. 4+2+2  
(b) How does the range function work?  
(c) What are the different types of arguments in Python?

9. (a) What is the pass keyword used for? 2+4+2  
(b) Write a Python program to split the array and add the first part to the end.  
(c) What is name space in Python?

**N.B. :** Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.

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