Q.P. Code – 68601

Sixth Semester B.C.A. Degree Examination, April/May 2019

(CBCS Scheme)

Computer Science

Paper 6.1 – PROGRAMMING USING PYTHON

Time : 3 Hours] *[Max. Marks : 90*

Instructions to Candidates : Answers ALL the Sections.

SECTION – A

Answer any **TEN** of the following. **(10 × 1 = 10)**

1. What is indentation in python?
2. Give the example for multiple assignment.
3. Differentiate between input ( ) and raw input ( ) statements in python.
4. What is recursion?
5. How to declare list in python?
6. What is meant by pattern matching?
7. Define methods in python.
8. How to deallocate the allocated memory for constructor?
9. Why we use commit ( ) in python?
10. Which tool is used to develop GUI applications?
11. Define exception handling.
12. What is the purpose of triple (" " ") quotes in python?

SECTION – B

Answer any **FIVE** of the following. **(5 × 3 = 15)**

13. Explain identity operators.
14. Mention and explain string formatting operators.
15. Explain PASS statement in python.

16. Differentiate between "import" and "from import" in python.

17. Explain regular expression.

18. Write a python program to illustrate the constructor.

19. Write a python program to generate pythagorean triplets.

SECTION – C

Answer any **SIX** of the following. **(6 × 5 = 30)**

20. What is data type? Explain standard data types available in python.

21. Explain different types of function arguments available in python.

22. What is module? Illustrate with programming examples.

23. What is dictionary? Explain operations on dictionary.

24. Explain any three form elements in python.

25. Write a python program to illustrate the operations on set.

26. What is file? Explain file opening modes.

27. Write a python program to calculate the sum of two compatible matrices.

SECTION – D

Answer any **FIVE** of the following. **(5 × 7 = 35)**

28. Explain the features of python.

29. (a) Explain different types of IF statements in python.

    (b) Write short note on BREAK, CONTINUE and EXIT functions. **(4 + 3)**

30. Define list. Explain different types of operations on list in python.

31. (a) Write a python program to illustrate IO error in exception handling.

    (b) Write a python program to illustrate value error in exception handling. **(4 + 3)**

32. What is inheritance? Explain different types of inheritances in python.

33. (a) How to connect database in python? Explain.

(b) Explain :

(i) Insert operation

(ii) Read operation

(iii) Update operation

(iv) Delete operation. **(2 + 5)**

34. Input initial velocity and acceleration and plot the following graphs depicting equations of motion.

(a) Velocity with respect time $(V = u + at)$.

(b) Distance with respect to time $(S = u * t + 0.5 * a * t * t)$.

(c) Distance with respect to velocity $(S = (u * v - u * u)/2 * a)$.
