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## THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION NOVEMBER 2020

Electronics

ELE 3A 11—GENERAL COURSE I: PYTHON PROGRAMMING

Time: Two Hours and a Half

Maximum: 80 Marks

## Section A

Answer at least ten questions.

Each question carries 3 marks.

All questions can be attended.

Overall Ceiling 30.

- 1. What is a byte code?
- 2. What are identifiers in python?
- 3. Give the membership operators in python with examples.
- 4. Explain output statements in Python.
- Write the syntax of for loop statement.
- 6. What are loop control statements?
- 7. Explain range() function.
- 8. What are the advantages of function?
- 9. Define positional arguments in a function.
- 10. How function call is done in Python?
- 11. What are local variables?
- 12. What are the different ways to create strings in Python?
- 13. What are Lists?

## Section B

Answer at least five questions.

Each question carries 6 marks.

All questions can be attended.

Overall Ceiling 30.

- 16. Explain the different relational operators in Python with examples.
- 17. Write a program to find the sum of all odd and even numbers up to a number specified by the user.
- 18. Write a program to check whether a number is prime or not. Prompt user for input.
- 19. Find the area and circumference of a circle. Prompt user for input.
- 20. Describe the syntax for the following function and explain with an example:
  - a) abs() b) max() c) pow() d) len() e) sort()
- 21. Write a program to add two numbers using function.
- 22. Write a Python code to find the mean and variance from a list of numbers.
- 23. Describe the syntax for the following function and explain with an example:
  - a) replace() b) rstrip() c) reverse() d) count() e) join()

 $(5 \times 6 = 30 \text{ marks})$ 

## Section C

Answer any two questions.

Each question carries 10 marks.

- 24. Explain the different data types used in Python with examples.
- 25. Write a program to print the sum of the following series: 1 + 1/2 + 1/3 + 1/4 + ... + 1/n.
- 26. Write a Python program using function to find the value of  $_{n}P_{r} = n!/(n-r)!$  Without using in built factorial() function.
- 27. Write a Python program to check for the presence of a key in the dictionary and sum all its values.