

U.G. 1st Semester Examination - 2020

COMPUTER SCIENCE

Course Code : BCOSCCRC101

Course Title : Problem Solving using Computers

Full Marks : 30

Time : 2 Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any **ten** questions 1×10=10
- a) What is program counter?
 - b) What is cache memory?
 - c) What is non-volatile memory?
 - d) What is the output of `str[-1]` if `str="World"`?
 - e) What is the difference between 'syntax error' and 'semantic error' in computer programming?
 - f) What is the output of `11/2` in Python?
 - g) What will be the output of the following expression?
for i in range (1, 15, 4):
print(i)

- h) What is `enumerate()` in Python?
- i) What is the syntax of while loop in python?
- j) What is the main difference between RAM and ROM?
- k) What is the difference between internal documentation and external documentation in a program?
- l) What is a register?
- m) How the middle element of a list can be found?
- n) Name the units of a computer.
- o) Give two examples of secondary storage device.

2. Answer any **five** questions: 2×5=10
- a) What are the differences between tuple and list in Python?
 - b) What are the characteristics of computer?
 - c) What do you mean by decision table?
 - d) What is default argument in python?
 - e) What do you mean by debugging?
 - f) "Python is interpreted" - Justify the statement.
 - g) What do you mean by memory hierarchy?

h) What are the differences between program and algorithm?

3. Answer any **two** from the following: $5 \times 2 = 10$

a) Write a Python program to check whether an input number is palindrome or not.

b) Write a python program to print the following patterns: (number of rows should be taken from user)

```
    @
   @ @
  @ @ @
 @ @ @ @
```

c) Describe different types of errors in programming? Describe documentation in programming. $2+3$
