### 2017

## COMPUTER SCIENCE

(Programming Fundamentals Using C/C++)

[Honours]

(CBCS)

[First Semester]

PAPER -C1T

Full Marks: 40

Time: 2 hours

# Answer all questions

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their

own words as far as practicable

Illustrate the answers wherever necessary

GROUP-A

(C Programming)

1. Answer any two questions:

 $2 \times 2$ 

(a) What is variable? Give an example.

- (b) What is difference between 'V' and "V"?
- (c) What is a keyword? Give an example.
- (d) What is an array?
- 2. Answer any two questions:

 $5 \times 2$ 

- (a) Discuss about the scope of a variable using an example.
- (b) Explain different types of loops used in C. 5
- (c) How break and continue statements are used in loops? Give an example of each. 3+2

#### GROUP-B

# (C++ Programming)

3. Answer any three questions:

 $2 \times 3$ 

- (a) What is friend function?
- (b) What is multilevel inheritance? Give example.

- (c) What is Polymorphism?
- (d) Why exception handling is necessary?
- (e) What is pure Virtual function?
- 4. Answer any two questions:

 $5 \times 2$ 

- (a) What is operator overloading. Explain with proper example. Why operator orverloading is needed?
- (b) What is the difference between static and dynamic memory allocation in C++? Explain.
- (c) Write a C++ program to show multilevel inheritance.

### GROUP-C

5. Answer any *one* question:

 $10 \times 1$ 

(a) (i) Declare and initialize an array of integers in C.

	(ii) Declare a function in C that has two int parameters and returns an int.	2
	(iii) What is comment line argument in C?	3
	(iv) Explain if-else construct in C.	3
(b)	(i) What is a class and object in C++?	3
	(ii) Explain the properties of an object oriented programming language.	3
	(iii) Explain function overloading briefly with an example.	4