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**BP—17—2016**

**FACULTY OF COMPUTER STUDIES**

**B.Sc. (S.E.) (Second Year) (Third Semester) EXAMINATION**

**OCTOBER/NOVEMBER, 2016**

**SOFTWARE ENGINEERING**

**Paper S3.3**

**(Programming With C++)**

**(Tuesday, 22-11-2016)**

**Time : 2.00 p.m. to 5.00 p.m.**

*Time—3 Hours*

*Maximum Marks—80*

*N.B. :— (i) All questions are compulsory.*

*(ii) Assume suitable data if necessary.*

1. Attempt the following : 20

- (a) What is Manipulator ? Explain how to create user defined manipulator.
- (b) Explain visibility modes in C++ with example.
- (c) Write a C++ program to overload unary ++ postfix increment operator.
- (d) Explain friend function with example.

2. (a) What do you mean by initializing a file stream object ? What are the ways of doing it ? Give example for each of them. 8

(b) Explain reference variable with example. 7

*Or*

(c) Explain class and function template with example. 8

(d) What are default arguments ? How are they useful ? 7

3. (a) Explain memory management operators with example. 8

(b) How does string class differ from the character array ? 7

*Or*

(c) Write a program using for loop to calculate and print the first in fibonacci series (e.g. 1 1 2 3 5 8.....). 8

(d) Explain multilevel inheritance with example. 7

P.T.O.

4. (a) What are command line arguments ? How are they useful ? 8
- (b) Write a program to read the price of an item in decimal form (like 75.95) and print the output in paise (like 7595) using class. 7
- Or*
- (c) What is constructor ? Explain dynamic constructor. 8
- (d) Explain exception handling with example. 7
5. Write short notes on (any *three*) : 15
- (a) Basic concept of oop's
- (b) Type casting
- (c) Virtual function
- (d) Abstract class
- (e) Symbolic constant
- (f) Destructor.