

Total No. of Questions—8]

[Total No. of Printed Pages—3

|             |  |
|-------------|--|
| Seat<br>No. |  |
|-------------|--|

**[5152]-565**

**S.E. (Computer) (First Semester) EXAMINATION, 2017**

**OBJECT ORIENTED PROGRAMMING**

**(2015 PATTERN)**

**Time : Two Hours**

**Maximum Marks : 50**

**N.B. :—** (i) Answer Question 1 or 2, 3 or 4, 5 or 6 and 7 or 8.

(ii) Neat diagrams must be drawn wherever necessary.

(iii) Figures to the right indicate full marks.

(iv) Assume suitable data, if necessary.

**SECTION I**

**1. (a) Explain friend function with example. [4]**

**(b) Consider the following declaration :**

**class TRAIN**

**{**

**int trainno;**

**char dest[20];**

**float distance;**

**public:**

**void get( ); //To read an object from the keyboard**

**void put( ); //To write an object into a file**

**void show( ); //To display the file contents on the monitor**

**};**

**Complete the member functions definitions [8]**

**P.T.O.**

Or

2. (a) List the features of Object-oriented programming. [3]  
(b) What is Pointer, Smart Pointer and Shared Pointer. Explain using diagram and program [9]
3. (a) What is exceptional handling ? [3]  
(b) Explain  
(i) Virtual base class  
(ii) Abstract Class [4]  
(c) What is generic programming ? How is it implemented in C++ ? [5]

Or

4. (a) Explain class template using multiple parameters. Write a program in C++. [8]  
(b) Explain the significance of Static keyword in programming [4]
5. (a) Write the C++ file input and output program using seekg(), tellg(), read() etc member functions. [7]  
(b) What are cin and cout ? Explain iostream. [6]

Or

6. (a) What are various functions which are used to manipulate file pointers ? Explain using examples [7]  
(b) Explain command line arguments in C++. Write program to explain the same. [6]

7. (a) Use minimum 8 functions of vector STL. Write a program to explain the same. [7]
- (b) What is STL ? List different types of STL containers. [6]

Or

8. (a) Write a program to implement Map using STL [6]
- (b) What is container ? List the container classes in C++. Explain any *one* of them using program [7]