Total No. of Questions—8] [Total No. of Printed Pages—2

Seat No.	

[5352]-575

S.E. (Information Technology) (First Semester) EXAMINATION, 2018

PROBLEM SOLVING AND OBJECT ORIENTED PROGRAMMING

(2015 PATTERN)

Time : Two Hours **Maximum Marks : 50**

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

(*ii*) Neat diagram must be drawn wherever necessary.

(*iii*) Figures to the right indicate full marks.

(*iv*) Assume suitable data, if necessary.

1. (*a*) What are types of problems ? What are difficulties with problem solving ? [6]

(*b*) What are operators ? Explain different types of operators. Draw table for hierarchy of operator. [6]

Or

2. (*a*) Explain Local and global variable parameters. [6]

(*b*) Create the alogrithm and the flowchart to find the percentage (%) of all the students in a class using repeat until loop. [6]

P.T.O.

3. (*a*) Explain features of object oriented programming in detail. [6]

(*b*) Explain friend function and friend class. Give syntax for same. [6]

Or

4. (*a*) Explain need of operator overloading. Write C++ program to demonstrate any binary operator overloading. [6]

(*b*) How is memory management carried out in C++ ? Write syntax for the same. [6]

5. (*a*) Explain Abstract Base Class in detail. [6]

(*b*) Explain multiple inheritance with C++ program. [7]

Or

6. (*a*) What are virtual function and virtual destructor ? [6]

(*b*) How is concept of inheritance useful in object oriented programming language ? Explain types of inheritance. [7]

7. (*a*) Which Classes are used file stream operations ? Explain in detail. [6]

(*b*) Explain Exception Handling mechanism in C++ ? Explain how to catch multiple Exceptions in Program. [7]

Or

8. (*a*) Explain Namespaces. What are rules for namespaces ? [6]

(*b*) How to manage console I/O operations ? [7]