SUBJECT CODE:- 229
FACULTY OF ENGINEERING AND TECHNOLOGY
S.E. (CSE/IT) Examination Nov/Dec 2015
Object Oriented Programming Using C++
(Revised)

[Time: Three Hours]   [Max. Marks: 80]
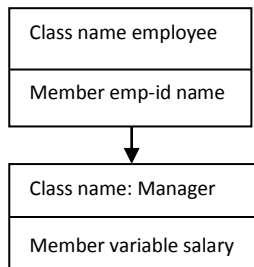
"Please check whether you have got the right question paper."

N.B   i) Question No 1 from section A and Question No 06 from section B are compulsory.
       ii) Solve any two questions from each section from remaining questions.
       iii) Assume suitable data if necessary

Section A

Q.1   Solve any five   10
      a) What are the different types of constructor?
      b) What is the importance of Destructor?
      c) Define reference variable.
      d) What is data hiding?
      e) Why cout and Cin are not considered as keyword?
      f) When the memory is allocated to an object? How ?
      g) Write any four characteristics of friend function.
      h) Identify the error in following

```
#include<Iostream.h>
int fun ()
{
 return 1;
}
 float fun().
{ return 10.23;
 void main()
 {
   cout <<(int) fun ()<< ' ';
   cout <<(float) fun ()<< ' ';
 }
```

Q.2   a) Explain in detail   08
          i.   Data Abstraction & Encapsulation
          ii.   polymorphism
      b) Discuss advantages , disadvantages & limitations of inline function.   07
Q.3   a) Write a program for addition of two complex numbers overload '+' binary operator using friend function   08
      b) WAP for function over loading in c++   07
Q.4   a) WAP to demonstrate use of static data members and static member function.   08
      b) Write a program to implement inheritance shown below. Assume suitable member function. Create two   07
          object

Class name employee
Member emp-id name

↓

Class name: Manager
Member variable salary

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| Q.5 | a) | Explain multiple inheritance with suitable example. | 08 |
| | b) | What are the differences between inheriting a class with public & private visibility mode. What is significance of protected. | 07 |

<div align="center">SECTION-B</div>

Q.6	Solve any five		10
	a)	When do you make a class virtual?	
	b)	Can a member function in derived class have same name as that of one in base class?	
	c)	What do you mean by exception?	
	d)	What does "this" Pointer point to?	
	e)	Define template.	
	f)	What is abstract class.	
	g)	Discuss role of file ( )function	
	h)	State the errors of any in the following statement	
		i. cout <<(void*) amount;	
		ii. cout << width();	
Q.7	a)	Write a c++ program that illustrate how to achieve runtime polymorphism using virtual function.	08
	b)	Write a c++ program to show use of constructor in single level inheritance	07
Q.8	a)	Explain concept of pure virtual function with example	08
	b)	Write a program to illustrate the concept of exception handling.	07
Q.9	a)	Explain stream classes and stream class hierarchy for input /output	08
	b)	Write a program for virtual base class operation.	07
Q.10	a)	Write a c++ program to read a file name and display the content of file on screen	08
	b)	Write a short note on "I/O manipulation"	07

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