

**Code: 9F00202**

MCA II Semester Regular &amp; Supplementary Examinations May 2016

**OBJECT ORIENTED PROGRAMMING**

(For students admitted in 2010, 2011, 2012, 2013, 2014 &amp; 2015 only)

Time: 3 hours

Max. Marks: 60

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Bring out the differences between C and C++.  
(b) Mention the characteristics of object oriented program.  
(c) How to create class & instances, also specify access specifiers.
- 2 (a) Explain the different types of storage class.  
(b) Sketch a neat structure of C++ and elaborate the sections.  
(c) Write C++ program to find the sum of 10 natural numbers without using any loop statement.
- 3 (a) Define class. Mention the class with the following details:  
Class employee { int no; char name[30];  
float Color code; public : void accept ( );  
Void display ( ); }; accept the details & display the same.  
(b) Distinguish between Class and Abstract class.  
(c) "Constructor can be over loaded" if yes justify your answer with an example.
- 4 (a) List out the operators that are not overloaded & not by friend also.  
(b) Using the class template perform arithmetic operations on integer, float & double.  
(c) Write a C++ program to overload the \*, + of two complex numbers using friend function.
- 5 (a) Explain calling of constructor & destructor in case of multiple inheritance with an example?  
(b) Mention the different types of inheritance with an example.
- 6 (a) List out the important points of virtual functions & bring out the difference between virtual & pure virtual function.  
(b) Elaborate the runtime polymorphism.
- 7 (a) Write a C++ program to overload <<, >> for performing addition of two numbers.  
(b) Write a C++ program to write integers in to file & open the same file, separate the odd numbers & even numbers & display the same.
- 8 (a) What is an exception? How an exception can be handled in C++?  
(b) Write a program containing a possible exception. Use a try block to throw it & a catch block to handle it properly.

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