

**M.Sc. 3rd Semester Examination, 2013**

**APPLIED MATHEMATICS WITH OCEANOLOGY  
AND COMPUTER PROGRAMMING**

*( Object Oriented Programming with C++ )*

PAPER – MTM- 304

*Full Marks : 25*

*Time : 1 hour*

Answer **Q.No.1** and any **two** questions from the rest

*The figures in the right hand margin indicate marks*

1. Answer any *two* questions : 2 × 2

(a) What is a class ? How a class is different from an object ?

(b) Explain the following functions used in file processing :

eof ( ) and good ( )

(c) What is polymorphism ? Explain with an example.

*( Turn Over )*

( 2 )

2. (a) Describe how the data member of a class can be initialized in C++.
- (b) Explain the following with respect to the object oriented paradigm :
- (i) private and (ii) public.
- (c) What is inline substitution? Explain the difference between the inline code over the macro. 2 + 3 + 3
3. (a) What is the difference between the base class and derived class? Explain how data member and member functions of a base class can be accessed by the derived class member functions.
- (b) Explain public and private derivations. Also, explain the merits and demerits of private derivation over the public derivation.
- (c) Write a short note on multiple inheritance. 3 + 3 + 2

( 3 )

4. (a) What is meant by Overloading in OOP paradigm? What is function overloading? List the merits and demerits of function overloading over the conventional functional usages.
- (b) Write a program in C++ for reading a file name from command line and write its contents in another file, which also be supplied from command line. 4 + 4

[ *Internal Assessment* – 5 Marks ]

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