

Total No. of Questions : 4]

SEAT No. :

P1236

[Total No. of Pages : 2

[5121]-26

M.A./M.Sc. (Semester - II)

MATHEMATICS

**MT-606: Object Oriented Programming using C++
(2008 Pattern)**

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *Question One is compulsory.*
- 2) *Attempt any two questions from Q.2, Q.3 and Q.4.*
- 3) *Figures to the right indicate full marks.*

Q1) Attempt any Ten of the following :

[20]

- a) Write syntax of output stream and input stream.
- b) Write a short note on function prototype.
- c) What are disadvantages of macros?
- d) What are C++ keywords? Give four examples.
- e) What is data encapsulation?
- f) Write output of following program.

```
# include <iostream.h>
int main ( )
{
    cout << "Mathematics is queen of science",
    return 0;
}
```
- g) Define friend function.
- h) What do you mean by hybrid inheritance?
- i) Write a function to read a matrix of size 5×6 from the keyboard using "for" loop.

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- j) State one difference between break and continue.
 - k) What is operator overloading?
 - l) Explain the term “message passing”.
- Q2)** a) Write a program in C++ to find Euclidean distance between two points in XY plane with output. [5]
- b) Write a note on inline functions. [5]
- c) Compare dynamic memory management in C and C++. [5]
- Q3)** a) Write a note general form of class declaration. [5]
- b) Write a program in C++ to find simple interest. [5]
- c) What is difference between constructor and destructor? [5]
- Q4)** a) Define : [9]
- i) Call by value
 - ii) Call by reference
 - iii) Return by reference with examples.
- b) Write benefits of OOP (Object Oriented Programming). [6]

