PG/IIIS/MCA-306/18(Pr.)

MCA 3rd Semester Examination, 2018

MCA

(Object Oriented Programming Lab)

(Practical)

PAPER — MCA-306

Full Marks : 100

Time : 3 hours

The figures in the right hand margin indicate marks

Answer any **two** questions(on lottery basis) :

35 × 2

1. Write a C++ program to create a class 'String' and overload +, >> and << operators for string concatenation, input and output.

(Turn Over)

2. Write a C ++ program to create a class 'Complex' to represent complex numbers. Overload +, :, >> and << operators for complex number addition, multiplication, input and output respectively.

3. Write a C ++ program to read a square matrix and display its transpose.

4. Write a C ++ class and overload new and delete operators.

5. Write a C ++ program to implement default constructor, copy constructor and overload = operator.

6. Write a C ++ class 'Student' with suitable data members. Write the objects of student class in a file and read the objects from the file.

7. Write a C ++ program to show the use of virtual base class.

8. Write a C ++ program to create a namespace. Use the namespace in your program.

9. Write a C ++ program to create an 'Account' class to represent a bank account. Write appropriate data members and member functions to check balance, deposit and display account information.

10. Write a file copy program in C++. Input the source and destination file path through command line argument.

11. Write a program to implement a Time class. The data members are hour, minute and second. Overload +, ++ and << operators.

12. Write a C ++ program to show the usability of friend function in C++.

13. Write a C ++ program to create a function template and a class template. Use the templates in your program.

14. Write a C ++ program to count the number of lines, words and characters form a given text.

15. Write a C ++ program to show exception handling C++.

16. Write a C ++ program to develop interfaces on multiple inheritance.

17. Write a C ++ program to illustrate Hybrid inheritance.

18. Write a C++ program that creates and used array of object of a class.

19. Write a C++ program to allocate memory dynamically for an object of a given class using class's constructor.

20. Write a C++ program to design a class complex to represent complex numbers. The complex class should use an external function (use it as a friend function) to add two complex numbers. The function should return an object of type complex representing the sum of two complex numbers.

Viva-voice – 20 Marks

Practical Note Book – 10 Marks

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