

Total No. of Questions : 12]

SEAT No. :

**P3357**

**[6006]-44**

[Total No. of Pages : 2

**F.Y.M.C.A. (Engg.)**

**OBJECT ORIENTED PROGRAMMING  
(2020 Pattern) (Semester - I) (310903)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q.1or Q.2, Q.3or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10, Q.11 or Q.12.
- 2) Neat diagram must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data if necessary.

**Q1) a)** Explain terms - Polymorphism, Inheritance, Abstraction [6]

b) Describe the Need of header files in Object - Oriented Programming.[5]  
OR

**Q2) a)** State advantages of C++ over C [6]

b) Define comment. Why is it important to write comments in programs?[5]

**Q3) a)** Explain the concept of looping statements with example. [6]

- b) Create a class staff having fields : Staff\_id, name, salary. Write a menu driven program for : [6]
- i) To accept the data
  - ii) To display the data

OR

**Q4) a)** What is the use of Inline function? Explain with example. [6]

b) Write a program to print factorial of given number using special functions constructor & destructor. [6]

**Q5) a)** Write a program to overload binary operators '>' and '<' to compare two strings.' [6]

b) Explain the types of polymorphism with example. [6]

OR

**P.T.O.**

- Q6)** a) Differentiate between multiple and multilevel inheritance in C++? [6]  
b) Write a program to overload increment and decrement operator. [6]
- Q7)** a) State the difference between overloading and overriding function. [6]  
b) What is dynamic binding concept? How it is useful in OOP? [6]  
OR
- Q8)** a) What is the use of friend function in programming? What is difference in a friend function and member function? [6]  
b) With suitable example explain working of virtual function and destructor? [6]
- Q9)** a) Write a program to find out square of number using function template?[6]  
b) Explain the use of throw.... catch ....try in respect to exception handling mechanism? [6]  
OR
- Q10)a)** Write a program to handle invalid email id entry error. [6]  
b) Explain four kinds of relationships between classes and their friends when templates are involved? [6]
- Q11)a)** Explain with syntax and example working of put(), seekp(), tellp(), seekg() and tellg () and write () functions [6]  
b) State the difference between early binding and late binding? [5]  
OR
- Q12)a)** Write a C++ program to open text file and store students' records (name, roll, no, address,percentage) in it. [6]  
b) Explain different input/ output objects of stream library? [5]



Total No. of Questions : 12]

SEAT No. :

**P7007**

[Total No. of Pages : 2

[5873]-303

**F.Y. M.C.A. (Engineering)**

**OBJECT ORIENTED PROGRAMMING**

**(2020 Pattern) (Semester - I) (310903)**

Time : 2½ Hours]

[Max. Marks : 70

*Instructions to the candidates:*

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Figures to the right side indicate full marks.*

- Q1)** a) Explain terms - Polymorphism, Inheritance, Abstraction. [6]  
b) Describe the Need of header files in Object-Oriented Programming. [5]

OR

- Q2)** a) State advantages of C++ over C. [6]  
b) Define comment. Why is it important to write comments in programs? [5]

- Q3)** a) Explain the concept of looping statements with example. [6]  
b) Create a class staff having fields : Staff\_id, name, salary. Write a menu driven program for: (i) To accept the data (ii) To display the data. [6]

OR

- Q4)** a) What is the use of Inline function? Explain with example. [6]  
b) Write a program to print factorial of given number using special functions constructor & destructor. [6]

- Q5)** a) Write a program to overload binary operators '>' and '<' to compare two strings. [6]  
b) Explain the types of polymorphism with example. [6]

OR

- Q6)** a) Differentiate between multiple and multilevel inheritance in C++? [6]  
b) Write a program to overload increment and decrement operator. [6]

*P.T.O.*

- Q7)** a) What is Friend Class? Explain with example. [6]  
b) What is Dynamic Binding? [5]

OR

- Q8)** a) What is the use of this pointer? [5]  
b) Explain the concept of Virtual Function. [6]

- Q9)** a) Why templates are used in C++? How many types of templates are there in C++? [6]  
b) Write a program to find Largest among two numbers using function template. [6]

OR

- Q10)** a) Write a program to handle exception for “divide by zero”. [6]  
b) What is generic programming? How is it implemented in C++? [6]

- Q11)** a) Discuss the various forms of get( ) function supported by the input stream. How are they used? [6]  
b) What is a file mode? Describe the various file mode options available. [6]

OR

- Q12)** a) What is input stream and output stream? Explain various methods to open a file. [6]  
b) Write a program to read a list containing item name, item code, and cost interactively and produce a three column output as shown below. [6]

Item Name	Item Code	Cost
Database	1006	550.95
Java Programming	905	99.70



Total No. of Questions : 12]

SEAT No. :

PA-4319

[Total No. of Pages : 2

[5929] - 1052

**F.Y. M.C.A. (Engineering)**

**OBJECT ORIENTED PROGRAMMING**  
**(2020 Pattern) (Semester - I) (310903)**

*Time : 3 Hours]*

*[Max. Marks : 70*

*Instructions to the candidates :*

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10, Q.11 or Q.12.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*

- Q1)** a) Explain-Need of Object Oriented Programming. [5]  
b) Explain the structure of Bottom up approach. [6]

OR

- Q2)** a) Compare C & C++ platforms. [6]  
b) Write a note on Data Hiding in OOP. [5]

- Q3)** a) Write the various operators with example used in C++. [6]  
b) Write a C++ program to calculate factorial of a no to explain Constructor and Destructor. [6]

OR

- Q4)** a) Explain the concept of Decision Making statements with example. [6]  
b) Create a class staff having fields : [6]  
Staff\_id, name, salary. Write a menu driven program for :  
i) To accept the data.  
ii) To display the data.

- Q5)** a) Explain the term class in inherited Publicly, Privately and Protectedly. [6]  
b) Why to overload and override a function? Explain with example. [6]

OR

**P.T.O.**

**Q6)** a) Write a program to overload binary operators ‘>’ and ‘<’ to compare two strings. [6]

b) What is Polymorphism? Draw diagrams of various types of polymorphism with syntax. [6]

**Q7)** a) What is member a class? How to access members of a class with non members? [6]

b) What is Dynamic Binding? [5]

OR

**Q8)** a) What is the use of this pointer? [5]

b) What is abstract class? Explain with example. [6]

**Q9)** a) Why templates are used in C++? How many types of templates are there in C++? [6]

b) Write a Program to find Largest among two numbers using function template. [6]

OR

**Q10)** a) Write a program to handle exception for “divide by zero”. [6]

b) What is generic programming? How is it implemented in C++? [6]

**Q11)** a) Discuss the various forms of get() function supported by the input system. How are they used? [6]

b) What is a file mode? Describe the various file mode options available. [6]

OR

**Q12)** a) What is input stream and output stream? Explain various methods to open a file. [6]

b) Write a program to read a list containing item name, item code and cost interactively and produce a three column output as shown below. [6]

Item Name	Item Code	Cost
Database	1006	550.95
Java Programming	905	99.70



Total No. of Questions : 12]

SEAT No. :

**P-8663**

[Total No. of Pages : 2

**[6183]-543**

**F.Y. M.C.A. (Engineering)**

**OBJECT ORIENTED PROGRAMMING**

**(2020 Pattern) (Semester - I) (310903)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Figures to the right side indicate full marks.*
- 3) *Assume Suitable data if necessary.*

- Q1)** a) Describe the need of Object-Oriented Programming (OOP). [6]  
b) Explain the basic concepts of Object-Oriented Programming and advantages of it. [5]

OR

- Q2)** a) List out the step of basic structure of C++ program. [6]  
b) How Comments and header files work in any Object-Oriented Programming language. [5]

- Q3)** a) List out the various Data Types in C++ programming language with suitable examples. [6]  
b) Write a C++ program to print employee details. [6]

OR

- Q4)** a) What is an inline function in C++? [6]  
b) Write a note on static members and member functions in details. [6]

- Q5)** a) C++ Program to Addition of Complex Numbers Using Operator Overloading. [6]  
b) What is inheritance? List out the various types of inheritance are get in C++. [6]

OR

**P.T.O.**

- Q6)** a) What is Polymorphism? What are the advantages of it. [6]  
b) Write a tabular difference between function overloading and function overriding in detail. [6]

- Q7)** a) What is the use of Friend function, explain with example. [6]  
b) What is virtual function? Why do we need virtual functions? [5]

OR

- Q8)** a) Illustrate the concept of dynamic binding with suitable example. [6]  
b) Explain the concept of this pointer. [5]

- Q9)** a) How many types of templates are there in C++? Explain with example. [6]  
b) Write a Program to find Largest among two numbers using function template. [6]

OR

- Q10)** a) Explain how exception handling mechanism can be used for debugging a program. [6]  
b) What is generic programming? How is it implemented in C++? [6]

- Q11)** a) Discuss the various forms of get() function supported by the input stream. How are they used? [6]  
b) What is a file mode? Describe the various file mode options available. [6]

OR

- Q12)** a) What is input stream and output stream? Explain various methods to open a file. [6]  
b) Write a note on - seekg(), tellp(), getline(). [6]

