



Model Questions

PRS/KS/24/2636

Faculty of Science & Technology

Fourth Semester B.Tech. (Information Technology) (C.B.C.S.) Examination

OBJECT ORIENTED PROGRAMMING SYSTEM

Time : Three Hours]

[Maximum Marks : 70

INSTRUCTIONS TO CANDIDATES

- (1) All questions carry marks as indicated.
- (2) Solve Question No. **1 OR** Question No. **2**.
- (3) Solve Question No. **3 OR** Question No. **4**.
- (4) Solve Question No. **5 OR** Question No. **6**.
- (5) Solve Question No. **7 OR** Question No. **8**.
- (6) Solve Question No. **9 OR** Question No. **10**.
- (7) Due credit will be given to neatness and adequate dimensions.
- (8) Assume suitable data wherever necessary.

1. (a) What is the difference between Procedural Programming and Object Oriented Programming ?
7
- (b) What are the main features of Object Oriented Programming, and how do they benefit programmers ?
7

OR

2. (a) What are the basic, derived and user defined data types in Object Oriented Programming ? 7
- (b) What is access control, how does it determine which parts of program can access a class data members and member functions ? 7
3. (a) What are the types of constructors ? Explain with suitable example (using program code). 7
- (b) What is 'this' pointer ? How it is used to access an object's data member and member functions ? 7

OR

4. (a) What is a friend function and how does it differ from a member function in terms of access control ?
7
- (b) How are array of object and string classes used in OO Programming ? 7
5. (a) What is the difference between private, public and protected inheritance in C++ ? 7
- (b) Explain the concept of base and derived class in inheritance with an example. 7

OR

6. (a) Differentiate between multiple and multilevel inheritance. Explain with the help of property. 7
- (b) What is inheritance ? Why it is important in OO Programming ? Explain with an example. 7

Model Questions

7. (a) Discuss function overloading in detail with any suitable example. 7
- (b) What is operator overloading ? Explain with the help of OO Program. 7
- OR**
8. (a) Explain the new and delete operators in C++ in Programming with suitable example. 7
- (b) Explain with an example the concept of overloading a binary operator in a programming language. 7
9. (a) What are stream classes in C++ and how they are used for file handling ? 7
- (b) Explain the concept of pointer for object with suitable OO Program. 7
- OR**
10. (a) Explain the concept of Template Function with suitable OO Program. 7
- (b) How are file pointers used in C++ for reading and writing data to files ? 7



Model Questions

B.Tech. (Information Technology) Fourth Semester (C.B.C.S.)

Object Oriented Programming System

P. Pages : 2

Time : Three Hours



* 1 5 8 7 *

PSM/KW/23/2636

Max. Marks : 70

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Due credit will be given to neatness and adequate dimensions.
 8. Assume suitable data whenever necessary.
 9. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Explain Features of OOPs with example? 7
b) Explain abstract and concrete class with suitable example? 7
- OR**
2. a) Explain Dynamic binding and message passing? 7
b) What is polymorphism? Write a program using polymorphism in which user enters the number, if the number is positive and the number is also even, then print the cube of the number and if the number is odd and negative then print the square of the number. 7
3. a) Write use of constructor? What is parameterized constructor? 7
b) Write a C++ program to demonstrate constructor and destructor? 7
- OR**
4. a) Explain Virtual destructor with example? 7
b) What is friend function? 7
5. a) What is inheritance? Explain types of inheritance? 7
b) What is Inline function? Explain with example? 7
- OR**
6. a) What is containership or classes within classes? Explain with suitable example. 7
b) Differentiate between polymorphism and Inheritance? 7
7. a) What is difference between function overloading and function overriding? 7
b) What are pitfalls in operator overloading? 3

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- c) State properties of constructor. Also explain different types of constructor along with example? 4

OR

8. a) Explain the new operator with suitable example. 5
- b) Explain Function Overloading with example? 5
- c) What are the applications of 'this' pointer? 4
9. a) Explain hierarchy of File stream class? 7
- b) What is file? Write steps of manipulating files? 7

OR

10. a) What are different methods of opening a file? Write a program to open a file enter student details in the file? 10
- b) Explain with example, how function templates are used? 4



Model Questions

B.Tech. Fourth Semester (Information Technology) (C.B.C.S.) Summer 2023

Object Oriented Programming System

P. Pages : 2

Time : Three Hours

**MSP/KS/23/2596**

Max. Marks : 70

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Assume suitable data whenever necessary.
 8. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) What are the features of object oriented programming? 7
b) Distinguish between procedure oriented programming and object oriented programming? 7

OR

2. a) What are the input and output operators used in C++? 7
b) Explain control statements of C++? 7
3. a) Define Constructor? And types of Constructor? 8
b) Write short note on friend function? 6

OR

4. a) Define Parameterized Constructor and Multiple Constructor with example? 8
b) Explain Destructor with suitable example? 6
5. a) What is meant by inheritance? Give thy syntax for inheritance? 7
b) What is a virtual base class explain with example? 7

OR

6. a) Explain the types of inheritance with example? 8
b) What are the types of polymorphism? 6
7. a) Explain Function overloading with example? 7
b) What is operator overloading? How are operators overloaded? 7

OR**MSP/KS/23/2596**

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- | | | | |
|-----------|-----|--|---|
| 8. | a) | Define: | 8 |
| | i) | Unary operator. | |
| | ii) | New and delete operators. | |
| | b) | Enlist the operators that cannot be overloaded using Friend function. Also explain them. | 6 |
| 9. | a) | What is command-line argument? | 4 |
| | b) | Write the syntax and use of getline() and while() function? | 7 |
| | c) | Compare C strings with C++ strings? | 3 |
| OR | | | |
| 10. | | Short note on: | |
| | a) | File pointers. | 5 |
| | b) | Exception Handling. | 5 |
| | c) | File stream classes. | 4 |



Model Questions

B.Tech. (Information Technology) Fourth Semester (C.B.C.S.) Winter 2022

Object Oriented Programming System

P. Pages : 2

Time : Three Hours



SPM/KW/22/2596

Max. Marks : 70

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
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 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
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 9. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Explain various features of object oriented programming. 7
- b) Explain different access specifier / visibility mode in OOP. 7

OR

2. a) Write a program in C++ to calculate electricity bill for the current month using classes and object (Use suitable data). 7
- b) Explain object oriented programming and procedure oriented programming. 7
3. a) Define constructor? Explain different types of constructor in detail along with example. 7
- b) Explain the concept of array of object along with example. 7

OR

4. a) Explain static data members and member function in detail along with example. 5
- b) Write a short note on 9
 - i) Friend Function
 - ii) This pointer
 - iii) Inline Function
5. a) Explain private, public and protected inheritance. 7
- b) Define inheritance? Explain types of inheritance in detail. 7

OR

6. a) Differentiate between virtual function and pure virtual function. 7
- b) Define virtual base class? Explain with a help of program. 7

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7. a) Define operator overloading? Explain rules for operator overloading. 7
b) Write a program to overload binary operator '+'. 7

OR

8. a) Explain various pitfalls of operator overloading. 7
b) Explain advantages and disadvantages of dynamic memory allocation. 7
9. a) Discuss formatted and unformatted I/O with suitable example. 7
b) Explain with the syntax of – 1. seekg[] 2. seekp[] 3. tellg[] 4. tellp[] 7

OR

10. a) Explain multiple exception along with the example. 7
b) Write a program in C++ to perform overloading of insertion and extraction operator. 7
