Session: 2019-20

ICE-2103: Object Oriented Programming

PART-A

Chapter 1

1.What is object-oriented programming? What are the benefits of object-oriented programing?

2.What is procedure-oriented programming? Write down the characteristics of procedure-oriented programming?

3.Write down the difference between procedure-oriented programming and object-oriented programming?

4.Write down the advantages and disadvantages of object-oriented programming and procedure-oriented programming.

5.Write down the features of object-oriented programming.

6.Briefly explain the data abstraction, encapsulation, polymorphism and dynamic binding.

6. Define class, object and method.

7. Write down the application of object-oriented programming.

Chapter 2 & 3

1.What is C++? Write down the application of C++.

2.Briefly discuss about the structure of C++ language.

3.Briefly describe the basic data type in C++ programming language.

4. What is structure and union? What is the difference between structure and union.

5.Write down some new operators that introduce in C++ programming language.

6.What is the significance of scope resolution operator (::)? Explain.

7.What is expression? Explain different type of expression.

8. What is token? Briefly explain the token in C++.

9.What do you mean by operator overloading in C++ programming language?

Chapter 5

1. Define Object and Class?
2. What is the difference between Class and Structure?
3. What is Object? How they Created, Explain with example.
4. How a member function of a class defined, Explain.
5. What do you understand by private Member Function.
6. Briefly describe the memory allocation for objects.
7. What do you mean by static data members.
8. What do you mean by array of objects. Explain with a suitable example.
9. What is friendly function. Write down the characteristics of friendly function.
10. What do you mean by pointer to member of a class.

Chapter 6

1. Define constructors and destructors with suitable example.

2. What are the special characteristics of the constructor functions?

3. Explain parameterized constructors with suitable example.

4. Explain default constructor and overload constructor.

6. What do you mean by dynamic initialization of objects? Why do we need to do this?

7. Briefly describe the copy constructor with suitable example.

Chapter 7, 8 & 9

1. What do you mean by operator overloading in C++ programming language?
2. What do you mean by inheritance in C++?
3. What do you mean by abstract class?
4. Briefly describe the single inheritance in C++ programming language.
5. Briefly describe the different types of inheritance in C++ programming language.
6. Describe the syntax of multiple inheritance. When we use such an inheritance?
7. What are the differences between single and multiple inheritance in C++ languages?
8. What does polymorphism mean in C++ language?
9. What is a virtual function? What are the rules for virtual functions?

Introduction to Java

1. What is Java? Write down the features of Java Programming Language.
2. Write down the support systems of Java which are required for delivering information on the internet.
3. For running programs, write down the Java Development Kit.
4. Briefly describe Java development tools.
5. What is Java package? Write down the application of Java packages.
6. How Java differs from C and C++?
7. What is class? How created a class in Java?
8. Write down the structure of Java Program.
9. Briefly describe Java tokens.
10. How can you implement of Java Program?
11. Explain Java Virtual Machine and Java Constructor.
12. What is a variable? Write down the types of Java variables. How can you declare a variable in Java?
13. What is data type? Briefly explain data types in Java.
14. What is type casting in Java?
15. What is operator? Briefly describe different types of operators in Java.
16. What is array? How can you create and declare an array in Java?
17. How can you initialize one-dimensional array and two-dimensional array in Java? Explain.
18. What is String and Vector?
19. What is the difference between array and vector?

Class, Object, Method and Packages

1. Explain class, object and method in java language?
2. How to declare field in java?
3. Define method. Write down the syntax of method.
4. How to declare a Method in java?
5. Write a java program using class and objects.
6. Define constructor. What are the special properties of constructor.

7. What do you mean method overriding and method overloading in Java? Differentiate between method overloading and overriding.

8. Define inheritance. Describe the multiple inheritance in java?

9. What is an interface? What is the major difference between interface and a class?

10. What is Java packages? Write down the application of Java packages.

11. How you add a class or interface to a package? Explain.

12. How do you create a package and design a package in Java?

Applet Programming

1. What is applet?

2. What is local applet?

3. What is remote applet?

4. How do applets differ from applications?

5. Discuss the steps involved in developing and running a local applet.

6. Discuss the steps involved in loading and running a remote applet.

7. Describe the different stages in the life cycle of an applet.

8. Describe the various sections of Web page.

Graphics Programming

1. State the description for the following drawing methods of the graphic class.

2. Write a Java Program for drawing lines and rectangular.

3. Write a Java Program for drawing polygons.

4. Write down three arguments to draw polygon for using the drawPolygon() method of graphics class.

5. Write an applet program for drawing bar chart.

6. Briefly describe the AWT package.

7. About swings (JApplet, JFrame,JButton,JTree,JComboBox etc).

8. How is Java's co-ordinate system organized?

9. Describe the arguments used in the method drawroundrect().

Exception Handling

1. What is an Error and Exception? Describe their types with example

2. Write some common JAVE Exception?

3. Draw the Hierarchy of Event classes model

```
public static void main (String args[ ] )
{
    int a = 10;
    int b = 5;
    int c = 5;
    int x,y;
    x = a/(b-c);
    y = a / (b+c);
    system.out.println("x="+x);
    system.out.println("y="+y);
}
```

4. Write a program to handling above exception using try-catch block?

5. Difference between throw and throws in JAVA exception handling ?

Managing Input/Output Files in Java

1. What is file? Why do we require files to store data?

2. What is stream? How is the concept of streams used in Java?

3. What is Stream class? Write down the types of stream classes.

4. What are input and output streams? Explain them.

5. Describe the major tasks of input and output stream classes.

6. What is a Random-Access file? How is it different from a sequential file? Why do we need a Random-Access file?