# Question Bank/OOPS

**OBJECTIVE TYPE QUESTIONS:-**

Q 1. OOP uses bottom-up approach
a. Top-down b. bottom-up
Q 2. All languages are suitable to implement the oop concept easily no
a. Yes b. no
Q 3. Procedural languages follow Top-down approach
a. Top-down b. bottom-up
Q 4. OOP treats Data as a critical element in the program development
a. Data b. function
c. Object d. classes
Q 5. OOP allows us to decompose a problem into a number of entities called object
a. Object b. classes
c. Data d. function
Q 6. The combination of data and method make up on object
a. Function b. Object
Q 7. Objects may communicate with each other through methods
b. Methods c. Object d. classes
Q 8. New methods & data cab be easily added True
a. True b. false
Q 9. Set of objects is called as Class
a. Class b. function
Q 10. The entire set of data & code of an object can be made a user-defined data type using the concept of class
a. User-define b. static c. global d. derived
Q 11. The wrapping up of data & methods into a single unit is called as Encapsulation
a. Inheritance b. polymorphism c. Encapsulation
Q 12. Methods provide the interface between the object's data & the program
a. Data b. class c. methods
Q 13. The insulation of data from direct access by the program is called as data hiding
a. Encapsulation b. data hiding c. private
Q 14. Inheritance is the process by which object of one class acquires the properties of object of another class
a. Encapsulation b. data hiding c. inheritance
Q 15. The concept of inheritance provides the idea of reusability
a. Taking more than one form b. reusability c. data hiding
Q 16. The derived class is known as subclass
a. Superclass b. subclass c. parentclass
Q 17. The class from which the subclass derives the properties is called as Super class
a. Superclass b. subclass c. baseclass
Q 18. The property or the ability to take more than one form is called as Polymorphism
a. Encapsulation b. Polymorphism c. inheritance
Q 19. Polymorphism is extensively used in implementing Inheritance
a. Encapsulation b. data hiding c. inheritance

Q 20. The process of linking of a procedure call with the code to be executed is called as Binding

a. Binding b. Loading c. assembling

Q 21. The process in which the code to be link with the procedure call is not know till execution time it is called as Dynamic binding

a. Binding b. early binding c. static binding d. dynamic binding

Q 22. When the code to be linked with the call is known at compile time that situation is called as Static binding.

a. Binding b. late binding c. static binding d. dynamic binding

Q 23. The most striking feature of java is that it is platform independent.

a. Java compiler b. java interpreter c. platform independent

Q 24. Java is a 2-stage system

a. 2-stage b. 3-stage c. 1-stage

Q 25. Java is developed by sun Microsystems in 1991 at USA

a. Microsoft b. sun Microsystems c. IBM

Q 26. Java compilers converts source code into Byte code

a. Unicode b. byte code c. psuedocode

Q 27. Java interpreter translates byte code into machine code

a. Java interpreter b. java compiler c. assembler

Q 28. Java programs can be easily moved from one computer system to another True.

a. False b. True

Q 29. Java is a robust language True.

a. False b. True

Q 30. Java supports multithreaded programs True.

a. False b. True

Q 31 The development tools are part of the system known as Java development kit (JDK)

a. JDK b. JSL c. java compiler

Q 32. Classes and methods are part of Java standard library (JSL)

a. JDK b. JSL c. java compiler

Q33. Javac stands for java compiler

a. Java interpreter b. java compiler c. java virtual m/c

Q34. Java stands for java interpreter

a. Java interpreter b. java compiler c. java virtual m/c

Q 35. Javah produces header files for use with native methods

a. javac b. java c. javah d. javadoc

Q 36. Applet viewer enables us to run java applets (without actually using a java-compatible browser

a. javac b. appletviewer c. javah d. javadoc

Q 37. Javap stands for java disasembler

a. Java interpreter b. java compiler c. javap

Q 38. Java disassembler, which enables us to convert byte code, files into a program description.

a. Java interpreter b. java compiler c. Java disassembler

Q 39. Jdb stands for java debugger

a. javac b. java c. javah d. Jdb

Q 40. Java debugger helps us to find error in our program.

a. Java debugger b. java compiler c. Java disassembler

Q 41. Language support package contains collection of classes and methods required for implementing basic features of java
a. Utility package b. I/O package c. language support package
Q 42. Utility package contains classes to provide utility functions.
a. Utility package b. I/O package c. language support package
Q 43. I/O package contains classes required for I/O manipulation.
a. Applet package b. I/O package c. language support package
Q 44. Does Java have "goto" NO?
A. Yes b. no
Q 45. Type casting is use to convert the value of one type to another
a. Data type b. variable c. typecasting
Q 46. How many numbers of java constants are present four
a. 6 b. 4 c. 5
Q 47. Instance and class variables are declared inside a class
a. Inside b. outside c. in the main
Q 48. Instance variables are created when the objects are instantiated and therefore they are associated with the objects
a. Declared b. defined c. instantiated
Q 49. Class variables are global to the class
a. Local b. static c. global d. derived
Q 50. Instance variables take different values for each object
a. Different b. same c. non-zero

## Short type Questions:-

1. State the difference between procedural language and OOP.
2. Define OOP & state the features supported by OOP.
3. What is Encapsulation & data abstraction state its advantages.
4. Explain the concept of inheritance in OOP with an Eg.
5. Differentiate between early binding and late binding.
6. State the applications of OOP
7. State the benefits of OOP.
8. Explain how objects communicate with each other
9. Differentiate between objects and classes
10. Explain evolution of JAVA
11. Explain the features supported by java.
12. Explain why JAVA is called as platform independent.
13. Explain working of Java Virtual Machine (JVM)
14. What are methods and how are they defined
15. How many ways can an argument be passed to a subroutine and explain them?
16. What is meant by Inheritance and what are its advantages?
17. Explain java tokens in detail.
18. Explain the naming conventions in JAVA.
19. Explain how java differs from C, C++.
20. Write a java program that uses command line argument.
21. Why Java is not 100% pure object oriented language?

22. Difference between “APPLET” and “APPLICATION”
23. What are Class, Constructor and Primitive data types?
24. What is an Object and how do you allocate memory to it?
25. What is the difference between constructor and methods state the properties of constructor?
26. What is casting, explain with eg.
27. How many ways can an argument be passed to a subroutine and explain them?
28. What are different types of access modifiers? Explain the features of each of it.
29. What is the difference between an argument and a parameter?
30. Explain the variables, constants, and data types present in java
31. Why do we need the import statement and what is the task of the main method in a java program
32. What are the command line arguments? How are they useful?
33. What are separators? Describe the various separators used in java
34. What is a statement? How do the java statement differ from those of C & C++?
35. Describe in detail the steps involved in implementing a stand-alone program?
36. Why can’t we use a keyword as a variable name?
37. Explain the need of symbolic constants in java?
38. What is a scope of a variable?
39. Which of the following are invalid constants and why?
    a.0.0001 b.5*1.5 c.RS 75.50 d.+100 e.75.45E-2 f. “15.75”
40. Write a program to convert the given temperature in Fahrenheit to Celsius using the following conversion formula $C = \frac{F-32}{1.8}$
41. In what ways does a switch statement differ from an if statement?
42. What is final, finalize () and finally?
43. What is Garbage Collection and how to call it explicitly?
44. What is method overloading and method overriding?
45. What is difference between overloading and overriding?
46. Write a program to find the number & sum of all integers greater than 100 & less then 200 that are divisible by 7.
47. What is an empty statement? Explain its usefulness
48. Compare in terms of their function the following pairs of statements:
    a. While and do while loop.
    b. While and for.
    c. Break and continue.
49. What is a class? How does it accomplish data hiding? What are the 3 parts a simple, empty class?
50. What are objects? How are they created from a class? How do we declare a member of class static?

## Descriptive type Questions:-

1. What do you mean by Encapsulation (explain with examples)?
2. What is the concept of Inheritance? Explain with a program.

3. What is JVM? Explain the process of compilation and interpretation in Java.
4. What is the difference between java and C++?
5. What are literals in java? Explain the conditional OR, AND, shift operation. What is type casting?
6. Explain the types of Inheritances with diagram. Write a program to implement multiple inheritances. **(Be prepare for case study problems)**
7. What do you mean by method overloading and overwriting? Explain both with programs. What do you mean by constructor overloading? Explain constructor overloading by a program.
8. What is parametric and non-parametric constructor? Explain both with programs.
9. What do you mean by "this","static","super","final","finally" keyword? Explain their characteristics through programs.
10. What are characteristics of abstract class? Explain it with a code. **(Be prepare for case study problems)**
11. What do you mean by package? How would construct a package? What are the characteristics of an Interface? Is it possible to extend interface from another interface? If possible write a program to explain it.
12. What is the immutability of String class? Different String operations(append ,concatenation, compare, indexOf,substring,charAt,toUppercase.toLowercase)
    What is String-buffer class? Explain with an example.
14. What do you mean by exception? What are the different exception types? Explain "try-catch","multiple catch", "throw","throws" through programs. Explain user defined exception. Nested try catch example.
13. What do you mean by call by value and call by reference? Explain with program.
14. What do you mean thread? Create a thread by using "Thread" class. What is Runnable interface? Explain through a program. Explain different thread states with diagram. Explain thread priority through by program. Explain multithreading using isAlive () and join (). Explain thread priority with a program.Difference between wait() and sleep().
15. Explain reading and writing files with both Byte stream and IO package. What is serialization and de-serialization? Explain with an example.
16. What is the difference between applet and application? Explain the hierarchy of applet class. Explain applet life cycle with diagram. Different methods drawstring(),setBackground(),setForeground(),showStatus(),paint(),update(),repaint(),getCodeBase(),getDocumentBase().
17. Create an applet having background color black and foreground color as white.
18. Thread synchronization and inter thread communication example. Daemon thread example. How it works?