Questions TopicWise JAVA

<u>00Ps</u>

- Q.1 What do you mean by Inheritance? What are the advantages of Inheritance?
- Q.2 Which class is by default parent class of all java classes ? why?
- Q.3 How many types of Inheritance are possible explain each and which type of Inheritance not supported in java?
- Q.4 What do you mean by multiple Inheritance?
- Q.5 Why java doesn't support multiple inheritance?
- Q.6 What is an ambiguity problem or diamond problem regarding inheritance in java?
- Q.7 Why does the ambiguity problem not arise in the case of interfaces in java?
- Q.8 What do you mean by a HAS-A relationship?
- Q.9 What do you mean by composition and aggregation in JAVA?
- Q.10 Give practical example of composition and aggregation in JAVA?
- Q. 11 What do you mean by method signature?

Q.12 What do you mean by method overloading? Q. 13 What do you mean by method overriding? Q. 14 What do you mean by method hiding? Q. 15 Explain the differences between method overriding and method hiding in java? Q. 16 Explain the differences between method overloading and method overriding in java? Q. 17 What do you mean by polymorphism? How many types of polymorphism are there? Q.20 What is the main purpose of the Constructor? Q. 23 What do you mean by default constructor? Q. 24 What are the differences between super(), this() and super,this? Q. 26 What do you mean by object type casting? Q. 27 Explain rules for object type casting? Q.28 What do you mean by Data hiding, Abstraction, **Encapsulation in Java?** Q.29 What is the purpose of the static block?

Q.30 What is the purpose of the instance block?

Q.31 What do you mean by coupling?

Q.32 What do you mean by Cohesion?

Language Fundamentals

- Q.1 What do you mean by Identifiers?
- Q.2 Explain Rules of Java Identifiers ?
- Q.3 Difference between float and double data type?
- Q.4 Why char data types takes 2 byte of memory in java?
- Q.5 What are the advantages and disadvantages of array?
- Q.7 What are the differences between instance and static variables ?
- Q.8 What do you mean by the var-arg method?
- Q.9 What are the advantages of the var-arg method?
- Q.10 What changes can we perform on main()?
- Q.12 What do you mean by command line arguments?

Exception Handling

Q.1 What do you mean by exception? Q.2 What is the main objective of Exception Handling? Q.3 What is the meaning of Exception Handling? Q.5 Which is the root class for Java Exception Hierarchy and why? Q.6 What are the differences between checked exceptions & unchecked exceptions? Q.7 What are the differences between partially checked exceptions & fully checked exceptions? Q.8 What is the purpose of try and catch block? Q.9 Explain about methods to print exception information to the console? Q.10 What is the main purpose of try with multiple catch blocks? Q.11 What is the main purpose and speciality of finally block? Q.13 What is the purpose of the throw keyword? Q.14 What is the purpose of the throws keyword? Q.15 How many types of exceptions are available in java?

Q.16 Explain any 5 exceptions of java?

Declaration & Access Modifiers

Q.1_How many classes a java program can contain ?
Q.2 What do you mean by fully qualified name and what is the problem in using a fully qualified name ?
Q.3 What is the purpose of import ?
Q.4 Explain types of import statement ?
Q.6 What do you mean by static import ?
Q. 7 What are the advantages and disadvantages of using static import ?
Q.8 What do you mean by package?
Q.9 What do you mean by public modifier?
Q.10 What do you mean by private modifier?
Q.11 What do you mean by <default> modifier ?</default>
Q.12 What do you mean by protected modifier?
Q.13 What do you mean by final modifier?
Q.14 Explain abstract class and abstract method ?

Q.15 What is the purpose of strictfp modifier?

- Q.16 What is the purpose of native modifier?
- Q.17 How many modifiers are applicable on outer class?
- Q.18 Which modifiers are applicable for local variables?
- Q.19 Which modifiers are applicable only for method?
- Q.20 Which modifiers are applicable only for variables?
- Q.21 On Constructors which modifiers are applicable?

<u>Interface</u>

Q.1_What do you mean by interface ?
Q.2 Explain about extends and implements keywords?
Q.3 What is the purpose of import ?
Q.4 Explain about interface methods and interface variables ?
Q.5 Multiple Inheritance possible in java or not ?
Q.6 Why is multiple Inheritance not supported in classes but supported in Interfaces ?
Q.7 How many Interfaces a Java class can implement simultaneously ?
Q.8 What do you mean by marker Interface ?
Q.9 What do you mean by Adapter class ?
Q.10 What are the differences between abstract class & Interface ?
Q.11 What do you mean by default method in Interface ?
Q.12 What do you mean by static method in Interface ?

Java.lang package

Q.1_Explain about Object class?
Q.2 Explain about toString() ?
Q.3 What do you mean by hashCode ?
Q.4 Explain about equals() ?
Q.5 Explain the relation between == operator and equals() ?
Q.6 What are the differences between == operator and equals() ?
Q.7 What is the purpose of cloning?
Q.8 What are the differences between shallow cloning and deep cloning?
Q.9 What are the differences between String and StringBuffer?
Q.10 Why is the String class object immutable ?
Q.11 What are the advantages and disadvantages of scp?
Q.12 What are the differences between equals() and equalsIgnoreCase()?
Q.13 What are the differences between StringBuffer and StringBuilder?
Q.14 What do you mean by wrapper classes ?

- Q.15 Which wrapper classes are not direct child classes of the Object class?
- Q.16 Which wrapper classes are direct child classes of the Object class?
- Q.17 What do you mean by auto boxing & auto unboxing?

Garbage Collection

- Q.1_What do you mean by Garbage Collection?
- Q.2 When an object is said to be eligible for GC?
- Q.3 Explain ways to make an object eligible for GC?
- Q.4 How can we request JVM to run GC?
- Q.5 Explain the purpose of finalize()?
- Q.6 What do you mean by memory leaks?

Collection Framework

Q.1 What are the advantages and disadvantages of array? Q.2 What are the advantages of collection? Q.3 What are the differences between array & collection? Q.4 What are the differences between add() and addAll() method of Collection interface? Q.5 What is the purpose of retainAll() of Collection interface? Q.6 What are the differences between contains() and containsAll() method of Collection interface? Q.7 What are the differences between Collection & Collections ? Q.8 Explain the properties of ArrayList? Q.9 What is the relation between current capacity & new capacity of ArrayList? Q.10 What are the differences between ArrayList & Vector? Q.11 When ArrayList is the best choice? Q.12 Explain the properties of LinkedList? Q.13 When LinkedList is the best choice? Q.14 Explain the properties of Vector?

- Q.15 Explain the properties of Stack?
- Q.16 What are the differences between pop() and peek() of Stack class?
- Q.17 What do you mean by cursors & how many cursors are available in Java?
- Q.18 Explain the properties of the Enumeration cursor?
- Q.19 What are the limitations of the Enumeration cursor?
- Q.20 Explain the properties of the Iterator cursor?
- Q.21 What are the limitations of the Iterator cursor?
- Q.22 Explain the properties of the Listterator cursor?
- Q.23 What are the limitations of the ListIterator cursor?
- Q.24 What are the differences among all the 3 cursors?
- Q.25 Explain the properties of HashSet?
- Q.27 What are the differences between HashSet & LinkedHashSet ?
- Q.28 Explain the properties of TreeSet?
- Q.29 What are the differences between Comparable & Comparator ?
- Q.30 What is the purpose of the Map interface?
- Q.32 Explain the properties of HashMap?

- Q.33 What are the differences between HashMap & Hashtable ?
- Q.34 What are the differences between HashMap & LinkedHashMap ?
- Q.35 What are the differences between HashMap & IdentityHashMap?
- Q.36 What are the differences between HashMap & WeakHashMap ?
- Q.37 Explain the properties of TreeMap?
- Q.38 What is the main purpose of Generics?
- Q.39 What are the differences between ArrayList I=new ArrayList() and ArrayList<String> I=new ArrayList<String>() ?

Multi-Threading

Q.1 What do you mean by Multi-Tasking? Q.2 What are the differences between process based multitasking and thread based multitasking? Q.3 By How many ways can we create a Thread in Java? Q.4 What do you mean by Thread Scheduler? Q.5 What are the differences between t.start() & t.run()? Q.6 What is the importance of Thread class start()? Q.9 Explain Thread life cycle in Java? Q.10 How can we set and get the name of a thread in Java? Q.11 How can we get current executing thread object in Java? Q.12 What do you mean by Thread Priority In Java? Q.13 Explain the concept of default priority? Q.14 Explain the purpose of yield()? Q.15 Explain the purpose of join()? Q.16 Explain the purpose of sleep()?

Q.17 What do you mean by synchronization?

- Q.18 What are the advantages & disadvantages of synchronization?
- Q.19 What do you mean by object level lock?
- Q.21 What is the purpose of synchronized block?
- Q.22 What do you mean by daemon thread?
- Q.23 What is the default daemon nature?
- Q.24 What do you mean by Inter Thread Communication?
- Q.25 What is the difference between notify() and notifyAll()?
- Q.26 What do you mean by deadlock?
- Q.27 What are the differences between deadlock & starvation?