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**JAVA QUESTIONS**

**Set 1:**

1. What is class?

2. What is object or instance of class?

3. What is Member variables, how it is different from local variables

4. What is static variables? explain

5. What is non-static variables or instance variables? explain

6. How to access static members? Explain

7. How to access non-static members of class? Explain

8. How to create an instance of class? Explain

9. What are the difference between static and non-static members of class

10. Give example when to use static variables and non-static variables

11. What is reference variables? How to create it?

12. What is primitive variables in java? how to declare it?

13. What is non-primitive variables in Java? how to declare it?

14. Explain how many ways member variables can be initialized?

15. explain static blocks and non-static blocks

16. What is constructors? why it is required?

17. Does every class has constructor?

18. What is default constructor?

19. What is parameterized constructor?

20. What is user defined constructor?

21. What is constructor Overloading?explain its benefit

22. Explain this keyword, what it contains and how it is useful

23. Explain this() statement, explain why it is required?

24. Does constructor has return type?

25. What does new operator used for and what it returns

26. Does java supports pass by reference? why

27. Does constructor be static?

28. Does constructor be inherited?

29. Can we delcare constructor as private?

30. What is the access of default constructor?

31. Can we override Constructor of class?

32. What is constructor calling or constructor chaining?

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33. Explain super() statement, explain why it is required?

34. what is the difference between this() and super()

35. Explain super keyword, what is the use of it?

36. What is the difference between super and this keyword

37. Explaing final member variables and how to initialize?

38. Give example when to use final instance variable?

39. Explaing Has-A relationship? how to achive it?

40. Explain what you mean by static reference variable?

41. Explain what you mean by instance reference variable?

42. What is inheritance? explain its advantages

43. What are the types of inheritance? Explain

44. Why does java doesn't support multiple inheritance?

45. What is super class or base class?

46. What is sub class or derived class?

47. Which members of super class can be inherited to sub class

48. Can we inherit Constructor of super class?

49. What is the role of Constructor in inhertiance?

50. From which super class the sub class cann't inherit?

51. If super class has private constructor, can sub class inherit its members?

52. What is implicit constructor call and explicit constructor call?

53. When to go for explicit constructor call?

54. What is method overloading? Explain

55. When to go for Method overloading? give real time examples

56. Can sub class overload the methods of super class?

57. Can we overload main method?

58. What is benefit of method overloading?

59. What is method overriding? Explain,give real time examples

60. What is the benefit of method overriding?

61. Which methods of super class can be overrided and which can't be overrided?

62. What do you mean by declaring instance method as final?

**Set 2:**

1. What is datatype casting? Explain its types

2. What is classtype casting? Explain its types

3. What is the pre-requiste to do class casting?

4. What is widening operation?

5. What is narrowing operation?

6. What is upcasting?

7. What is downcasting?

8. What is ClassCastException?When it occurs?

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9. What is the reason for ClassCastException?

10. What is the use of instanceof operator in java?

11. When to perform downcasting?

12. Why we need class type casting?

13. What is polymorphism? Explain its types

14. What is runtime polymorphism? how to achieve it?

15. What is the uses of ploymorphism?

16. How to access general properties and how to access specialized properties?

17. what is abstract method?

18. What is abstract class?explain its members

19. Can we create instance of abstract class

20. What the subclass should do if it extends from abstract class

21. Can we define constructor in abstract class?

22. How to access the instance members of abstract class?

23. Does abstract class must have abstract method?

24. Is abstract class pure abstract body?

25. What is interface? explain its characteristics?

26. Can we create instance of interface?

27. What is implementation class?

28. What must a class should do if it implements an interface?

29. How many interface a class can implement? why

30. Does interface has constructor?

31. Can an interface extend another interface?

32. Can an interface extend from a class?

33. What is default access in interface?

34. What is default access in class?

35. What must be the access of method in class which implements an interface?Why

36. Can we declare reference variable of interface? what we can assign?

37. What is benefit of interface ?

38. What is marker interface?

39. abstract keyword can't be combined with which keywords, why?

40. Can a class extend another class and implement interface? explain

41. What is abstraction? how to achieve it?

42. What is the benefit of abstraction?

43. What is encapsulation?

44. What are the access specifier provided in java?

45. What is the use of private member variables?

46. What is the difference between package level and protected members?

47. What is package?How to declare it?

48. What is the use of import statement?

49. What is static import statement?

50. What is java bean class? where it is used?

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51. What is Singleton class? Where it is used?

52. What is inner class? What are the types of inner class

53. What are the difference between abstract class and interface?

**Set 3:**

1. What are the members of Object class?

2. Explain toString(), hashCode() and equals() method of Object class

3. Why we need to override toString()?

4. Why we need to override hashCode() and equals();

5. What is String in java?

6. What is immutable object?

7. What are types of creating String object?

8. Explain Constant pool and non constant pool?

9. Explain difference between StringBuilder and StringBuffer class?

10. What are classtype arrays?

11. What is an exception? Explain types of Exception

12. What is checked Exception? give examples

13. What is the use of throw keyword?explain

14. What is the use of throws keyword and how it is different from throw

15. What is Throwable class?

16. What is RuntimeException class?

17. Explain try-catch block

18. Explain finally block

19. Explain Generic handler and specific handler

20. What is the difference between Exception and Error?

21. What is printStackTrace()?

22. What is custom Exception or user defined Exception?

23. Explain Java Exception Hierarchy

24. What is the difference between checked and unchecked exception?

25. What is the difference ClassNotFoundException and NoClassDefFoundError?

26. Can we write try block without catch block?

27. What is the use of multi catch block?

28. What is a Collection? Explain its benefit

29. What are the types of Collection?

30. Explain methods of Collection interface?

31. What is List ? explain its features

32. Explain the methods of List interface.

33. What are the types of List?

34. Explain ArrayList features?

35. What is the implementation data structure of ArrayList?

36. What are the constructors present in ArrayList?

37. How many interfaces ArrayList implements?

38. How to convert ArrayList to List and ArrayList to Collection?

39. How ArrayList grows dynamically?

40. When to use ArrayList?

41. Explain LinkedList? and its implementation data structure

42. How many interfaces LinkedList implements?

43. What are the difference between ArrayList and LinkedList?

44. Explain vector and its features

45. Explain how to sort elements of ArrayList?

46. How to get Synchronized List?

47. What is the set? Explain its features?

48. What are the types of Set?

49. Explain HashSet implementation in detail

50. Explain LinkedHashSet implementation in detail

51. Explain TreeSet implementation in detail

52. List the difference between HashSet, LinkedHashSet and TreeSet

53. Which Set is SortedSet?

54. What is NavigableSet?

55. What is Queue? Explain its features

56. Explain PriorityQueue implementation in details

57. How Set maintains no duplicate explain in details

58. Why should we override hashCode() and equals()

59. What is Comparable interface?

60. What is Comparator interface?

61. Explain constructors of HashSet?

62. Explain constructors of TreeSet

63. How to convert Set to Collection?

64. How to convert Set to any list like ArrayList?

65. What is Map? Explain how object are stored in Map

66. Explain important methods of Map?

67. Explain how to use Iterator on Map?

68. Explain types of Map in details

69. What is HashMap and explain its implementation

70. What is Hashtable and explain its implementation

71. What is SortedMap, give example

72. Explain TreeMap

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73. What is Iterator? how to use it?

74. What is ListIterator? how to use it?

75. Explain methods of Collections class

76. Explain why we need Comparable interface?

77. Expain difference between Comparable and Comparator interface?

78. What is a Thread?

79. Explain Thread properties

80. How to create a thread and start the thread

81. Explain thread started by JVM

82. What is the difference between start() and run()

83. Explain methods provide by the thread to use thread properties

84. What is Thread priority? what are the range and what is default priorty

85. Explain the constructors of Thread

86. What is Runnable interface?

87. How to make Runnable type object to run as a thread in JVM

88. Explain join() method of thread class?

89. What is Thread Safe? how to achieve?

90. What is object lock? when it get created?

91. Waht is class lock ? when it get created?

92. How to get reference to current running thread?

93. What is thread deadlock?

94. Explain how to overcome thread deadlock?

95. Explain what is interthread communication and how to achieve it?

96. Explain wait() and wait(time) methods? where is the implementation of it?

97. Explain notify() and notifyAll() methods?where is the implementation of it?

98. What is thread synchronization?

99. What is the difference between user thread and deamon thread?

100. How to pause execution of current thread?

101. What are the difference between wait() and sleep()?

102. What is thread deadlock? how to avoid deadlock situation

103. What are different states of in life cycle of a thread?

104. What is Object Serialization?

105. What is Object de-serialization?

106. What is transient keyword in java?

107. What is Garbage collection? explain?

108. What is the use of finalize(), in which class it is present?

109. What is Garbage Collector?