

## J2SE Syllabus

1. Basics of java programming
2. Software Requirement (JDK1.8, IDE [Netbeans,Eclipse, IntelliJIDEA, VSCODE,STS],mysql 8.0)
3. How to download JDk, How install and Path Set
4. Structure of the java program
5. Keywords, Identifier
6. Java output methods
7. Data types
8. Variables
9. Input [BufferedReader, Scanner, Command Line Argument]

## MCQ TEST

## Input output Based Task

- 10. Operators
  - 11. Binary
  - 12. Unary
  - 13. Ternary
  - 14. Arithmetic Operators
  - 15. Relational Operator
  - 16. Logical Operators
  - 17. Bitwise Operators
  - 18. Ternary Operators
  - 19. Assignment Operator
  - 20. Operator Precedence
  - 21. Operator Associativity
  - 22. Table
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## MCQ TEST

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- 23. Control Flow Statement
- 24. Conditional Statement
- 25. If
- 26. If else
- 27. Else if
- 28. nested if
- 29. Switch
- 30. Looping Statement
- 31. While
- 32. Do while
- 33. For
- 34. For each
- 35. Jumping Statement
- 36. Break

37. continue

38. return

39. System.exit(0)

40. Number Based Task

41. Coding Question on different platform

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MCQ TEST

Number Based Task

Coding Test

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42. Array

43. 1D Array

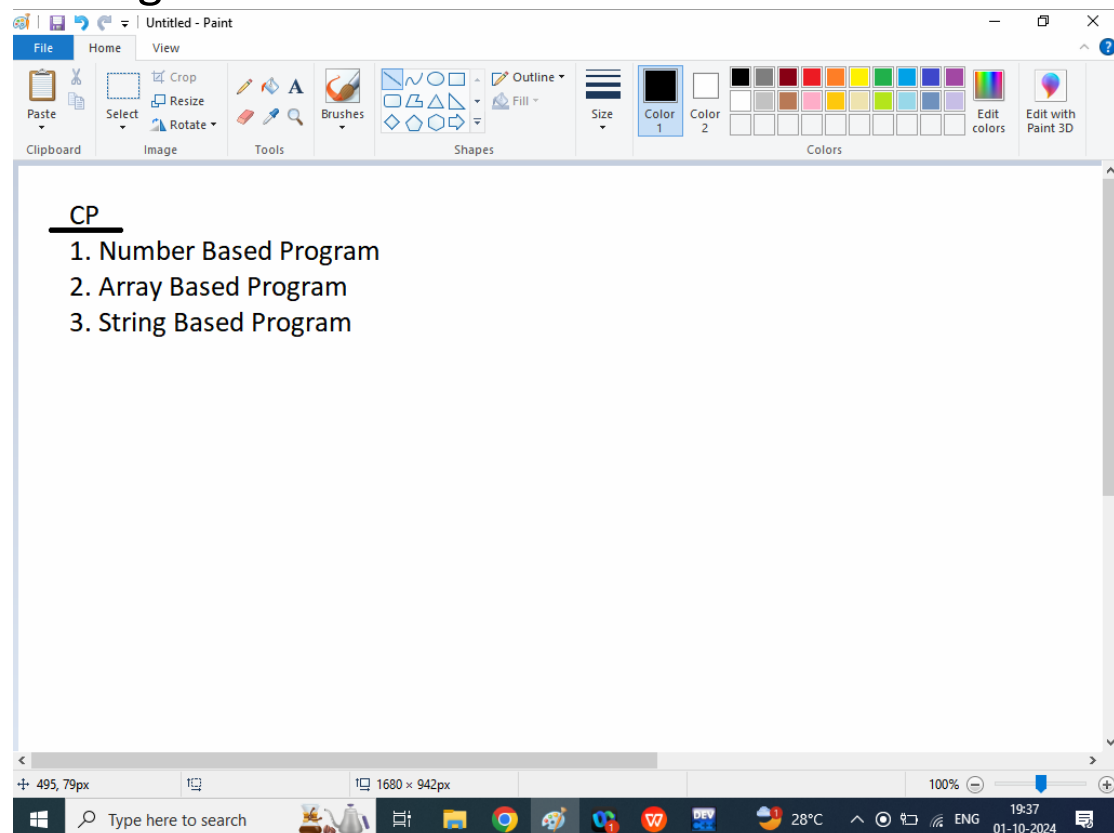
44. 2D Array

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MCQ TEST

Array Based Task

Coding Test



- 45. String(Immutable)
  - 46. SCP(String Constant Pool)
  - 47. StringBuffer(Mutable)
  - 48. StringBuilder(Mutable)
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MCQ Test

String Based Task

Coding Test

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OOPS concept

- 49. Class
- 50. Object
- 51. Member Data
- 52. Member Function
- 53. Access Specifier (private, public, protected)
- 54. Constructor
- 55. Default Constructor
- 56. Parameterized Constructor
- 57. Encapsulation
- 58. Inheritance
- 59. Polymorphism
- 60. Compile time Polymorphism [method overloading]
- 61. Run time Polymorphism [Method Overriding]
- 62. Static variables
- 63. Static block
- 64. Static method
- 65. final variable
- 66. final methods
- 67. final class

- 68. Variable argument(...)
  - 69. Abstraction [abstract class, interface]
  - 70. Interface
  - 71. Multiple Inheritance through interface
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MCQ TEST

CODING TEST

OOPS BASED TASK

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- 77. Exception Handling
  - 78. try
  - 79. catch
  - 80. throw
  - 81. Throws
  - 82. finally
  - 83. Pre - Defined Exception
  - 84. User Defined Exception
  - 85. Checked Exception
  - 86. Un Checked Exception
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MCQ Test

Coding Test

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87. JAVA SWING(UI)

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88. IO (File Handling)

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- 89. MySQL Database
- 90. How to create a database
- 91. How to create table
- 92. How to update table structure
- 93. How to insert data into table
- 94. How to update data
- 95. How to delete data

96. How to select data from the database table

97. Aggregate function

98. Where clause

99. Order by

100. Group by

101. In

102. Not in

103. Between

104. Not between

105. Like

106. Not Like

107. Having

108. Joins

109. Inner Join

110. Left Outer Join

111. Right Outer Join

112. Cross Join

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JDBC

113. CRUD Operation without(design Pattern)

114. CRUD Operation with Design Pattern (Beans and DAOS)

115. Registration and login module for project without design pattern

116. Registration and login module for project with design pattern

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117. DSA without Collection

118. Linear Data Structure

119. Time Complexity

- 120. Space Complexity
- 121. Array
- 122. Stack
- 123. Queue
- 124. Linked List
- 125. Singly Linked List
- 126. Doubly Linked List
- 127. Circular Linked List
- 128. Sorting
- 129. Selection Sort
- 130. Bubble Sort
- 131. Insertion Sort
- 132. Merge Sort
- 133. Quick Sort
- 134. Heap Sort
- 135. Searching
- 136. Linear Search
- 137. Binary Search
- 138. Non Linear Data Structure
- 139. Tree
- 140. Tree Related Terms
- 141. Tree Traversal Technique
- 142. In Order
- 143. Pre Order
- 144. Post Order
- 145. Binary Tree and its types
- 146. Binary Search Tree
- 147. Almost complete Binary Tree

148. Heap Data structure

149. Max Heap

150. Min Heap

151. Heap Sort

152. Graph

153. BFS (Queue)

154. DFS(Stack)

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DSA Using Collection

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