**IIG Varsity**

2nd Floor, E/43, iHub, Invocity Ave, Sailashree Vihar, Name of the Student

Patia, Bhubaneswar 751024 Suraj Samal

Test: **IIG-JAVA-001**, Time: **2 hours**, Date: **09-12-2024** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section-1** (Answer any 2 questions) Mark: 50

Upload the program to your GitHub folder in

https://github.com/milandas63/Intern-Java-2024-11-18/tree/main/Class-Test

1. Count the number of occurrences of each character in each string?

Hello World Students Allowed Holocaust

D = 1 A - 1 A - 1

E - 1 D - 2 C - 1

H - 1 E - 2 H - 1

L - 3 L - 1 L - 1

O - 2 N - 1 O - 2

R - 1 O - 1 S - 1

W - 1 S - 2 T - 1

T - 2 U - 1

U - 1

W – 1

= **public** **class** AlphabetCount {

**public** **static** **void** main(String[] args) {

String text = "Hello World";

**char** c;

**int**[] alphabetCount = **new** **int**[26];

**for** (**int** i = 0; i<alphabetCount.length; i++) alphabetCount[i] = 0;

**for** (**int** i = 0; i < text.length(); i++) {

c = text.charAt(i);

**if**(c>=65 && c<=90) {

alphabetCount[c-65]++;

} **else** **if**(c>=97 && c<=122) {

alphabetCount[c-97]++;

}

}

**for**(**int** i=0; i<alphabetCount.length; i++) {

**if**(alphabetCount[i] > 0)

System.***out***.println(((**char**)(i+65)) + " == " + alphabetCount[i]);

}

}

}

= **public** **class** AlphabetCount {

**public** **static** **void** main(String[] args) {

String text = "Students Allowed";

**char** c;

**int**[] alphabetCount = **new** **int**[26];

**for** (**int** i = 0; i<alphabetCount.length; i++) alphabetCount[i] = 0;

**for** (**int** i = 0; i < text.length(); i++) {

c = text.charAt(i);

**if**(c>=65 && c<=90) {

alphabetCount[c-65]++;

} **else** **if**(c>=97 && c<=122) {

alphabetCount[c-97]++;

}

}

**for**(**int** i=0; i<alphabetCount.length; i++) {

**if**(alphabetCount[i] > 0)

System.***out***.println(((**char**)(i+65)) + " == " + alphabetCount[i]);

}

}

}

**public** **class** AlphabetCount {

**public** **static** **void** main(String[] args) {

String text = "Holocaust";

**char** c;

**int**[] alphabetCount = **new** **int**[26];

**for** (**int** i = 0; i<alphabetCount.length; i++) alphabetCount[i] = 0;

**for** (**int** i = 0; i < text.length(); i++) {

c = text.charAt(i);

**if**(c>=65 && c<=90) {

alphabetCount[c-65]++;

} **else** **if**(c>=97 && c<=122) {

alphabetCount[c-97]++;

}

}

**for**(**int** i=0; i<alphabetCount.length; i++) {

**if**(alphabetCount[i] > 0)

System.***out***.println(((**char**)(i+65)) + " == " + alphabetCount[i]);

}

}

}

1. Write a program to convert all digits in a number to words?

Example: 12345 = One Two Three Four Five

03786 = Zero Three Seven Eight Six

72913 = Seven Two Nine One Three

1. Flip/Invert/Toggle the case of all characters in a given String?

Original: Quick Brown Fox Jumps Over The Lazy Dog

Invert: qUICK bROWN fOX jUMPS oVER tHE lAZY dOG

**Section-2** (Answer all questions) Mark: 30

Colour the right answer to **blue** colour

1. Who is known as father of Java Programming Language?
2. James Gosling
3. M P Java
4. Charel Babbage
5. Blais Pascal
6. In java control statements break, continue, return, try-catch-finally and assert belongs to?
7. Selection statements
8. Loop Statements
9. Transfer statements
10. Pause Statement
11. Which provides runtime environment for java byte code to be executed?
12. JDK
13. JVM
14. JRE
15. JAVAC
16. What is byte code in Java?
17. Code generated by a Java compiler
18. Code generated by a Java Virtual Machine
19. Name of Java source code file
20. Block of code written inside a class
21. Which of the following are not Java keywords?
22. double
23. switch
24. then
25. instanceof
26. Which of these have highest precedence?
27. ()
28. ++
29. \*
30. >>
31. Which of these is returned by operator '&'?
32. Integer
33. Character
34. Boolean
35. Float
36. Data type long literals are appended by \_\_\_\_\_
37. Uppercase L
38. Lowercase L
39. Long
40. Both A and B
41. Java language was initially called as \_\_\_\_\_\_\_\_
42. Sumatra
43. J++
44. Oak
45. Pine
46. Which variables are created when an object is created with the use of the keyword 'new' and destroyed when the object is destroyed?
47. Local variables
48. Instance variables
49. Class Variables
50. Static variables
51. What is garbage collection in the context of Java?
52. Java deletes all unused java files on the system
53. Memory used by the object with no reference is automatically reclaimed
54. The JVM cleans output of Java program with error
55. Any unused package in a program automatically gets deleted
56. Which one is a template for creating different objects?
57. An Array
58. A class
59. Interface
60. Method
61. Which symbol is used to contain the values of automatically initialized arrays?
62. Brackets
63. Braces
64. Parentheses
65. Comma
66. Number of primitive data types in Java are?
67. 6
68. 7
69. 8
70. 9
71. Which one is true about a constructor?
72. A constructor must have the same name as the class it is declared within
73. A constructor is used to create objects
74. A constructor may be declared private
75. All the above
76. Which of these operators is used to allocate memory to array variable in Java?
77. Alloc
78. Malloc
79. new malloc
80. new
81. Which of these is not a bitwise operator?
82. &' Operator
83. &=' Operator
84. |=' Operator
85. <=' Operator
86. Which of these is returned by Greater Than, Less Than and Equal To (i.e Relational) operator?
87. Float
88. Integer
89. Boolean
90. Double
91. Which statement transfer execution to different parts of your code based on the value of an expression?
92. If
93. switch
94. nested-if
95. if-else-if
96. Modulus operator (%) can be applied to which of these data types?
97. Integers
98. Floating - point numbers
99. Both A and B
100. None of These
101. Division operator has \_\_\_\_ precedence over multiplication operator
102. Highest
103. Least
104. Equal
105. None of These
106. What is the full form of JVM?
107. Java Very Large Machine
108. Java Verified Machine
109. Java Very Small Machine
110. Java Virtual Machine
111. What feature of OOP has a super-class sub-class concept?
112. Hierarchical inheritance
113. Single inheritance
114. Multiple inheritances
115. Multilevel inheritance
116. In Java code, the line that begins with /\* and ends with \*/ is known as?
117. Multiline comment
118. Single line comment
119. Both A & B
120. None of these
121. Which of the following are not Java modifiers?
122. public
123. private
124. friendly
125. transient
126. Which of the following is a superclass of every class in Java?
127. ArrayList
128. Abstract class
129. Object class
130. String
131. Which of the below is not a Java Profiler?
132. JProfiler
133. Eclipse Profiler
134. JVM
135. JConsole
136. Find the output of the following code?

int Integer = 24;

char String = ‘I’;

System.out.print(Integer);

System.out.print(String);

1. Compiler Error
2. Throws exception
3. I
4. 24I
5. Which one of the following is not an access modifier?
6. protected
7. void
8. public
9. private
10. Find the output of the following program?

public class Solution {

public static void main(String[] args) {

short x = 10;

x = x \* 5;

System.out.print(x);

}

}

1. 50
2. 10
3. Compile error
4. Exception

**Section-3** (Answer all questions) Mark: 20

Colour the right answer to **blue** colour

1. What will be the output of the following Java program?

class Recursion {

int func (int n) {

int result;

if (n == 1)

return 1;

result = func (n - 1);

return result;

}

}

class Output {

public static void main(String args[]) {

Recursion obj = new Recursion() ;

System.out.print(obj.func(5));

}

}

1. 1
2. 120
3. 0
4. None of the mentioned
5. What will be the output of the following Java code?

class Output {

public static void main(String args[]) {

String c = "Hello I love java";

boolean var;

var = c.startsWith("hello");

System.out.println(var);

}

}

1. 0
2. true
3. 1
4. false
5. What will be the output of the following Java program?

class Output {

public static void main(String args[]) {

StringBuffer s1 = new StringBuffer("Quiz");

StringBuffer s2 = s1.reverse();

System.out.println(s2);

}

}

1. QuizziuQ
2. ziuQQuiz
3. Quiz
4. ziuQ
5. What will be the output of the following Java code?

class Output {

public static void main(String args[]) {

Integer i = new Integer(257);

byte x = i.byteValue();

System.out.print(x);

}

}

1. 257
2. 256
3. 1
4. 0
5. What will be the output of the following Java program?

class Output {

public static void main(String args[]) {

double x = 2.0;

double y = 3.0;

double z = Math.pow( x, y );

System.out.print(z);

}

}

1. 9.0
2. 8.0
3. 4.0
4. 2.0