**IIG Varsity**

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Test: **IIG-FND-004**, Time: **2 hours**, Date: **26-08-2022** \_\_\_\_\_Rakesh Das\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section-1** (Answer any 3 questions) Mark: 45

Upload the program to your GitHub repository in your respective folder at

https://github.com/milandas63/IIG-batch1

1. Write a program to convert the table below into an array and print the array in a tabular manner with rows and columns?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Mahatma | Gandhi | Father of the Nation | India | 1869 AD |
| Narendra | Modi | Prime Minister | India | 1950 AD |
| Nelson | Mandela | President | S. Africa | 1918 AD |
| Goutam | Buddha | Spiritual Teacher | India | 624 BC |

1. Write a program to decode the following text:

Example: **Ksh mw Kssh - God is Good**

**Lmx sr ipizirxl - ?**

1. Write a program to find the power of a number using recurssion?
2. Write 2 programs to print next 5 numbers in the following series:
3. 36, 34, 30, 28, 24, ...
4. 22, 21, 23, 22, 24, 23, ...

**Section-2** (Answer all questions) Mark: 35

Colour the right answer in blue colour

1. Number of primitive data types in Java are?
2. 6
3. 7
4. 8
5. 9
6. What is the size of float and double in java?
7. 32 and 64
8. 32 and 32
9. 64 and 64
10. 64 and 32
11. Automatic type conversion is possible in which of the possible cases?
12. Byte to int
13. int to Long
14. Long to int
15. Short to int
16. 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. 59
2. 10
3. Compiler error
4. Exception
5. Find the output of the following program.

public class Solution{

public static void main(String[] args){

byte x = 127;

x++;

x++;

System.out.print(x);

}

}

1. -127
2. 127
3. 129
4. 2
5. Select the valid statement.
6. char[] ch = new char(5);
7. char[] ch = new char[5];
8. char[] ch = new char();
9. char[] ch = new char[];
10. Find the output of the following program.

public class Solution{

public static void main(String[] args){

int[] x = {120, 200, 016};

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

System.out.print(x[i] + “ “);

}

}

}

1. 120 200 016
2. 120 200 14
3. 120 200 16
4. None
5. When an array is passed to a method, what does the method receive?
6. A reference to the array
7. A copy of the array
8. Length of the array
9. Copy of the first element
10. Select the valid statement to declare and initialize an array.
11. int[] A = {};
12. int[] A = {1,2,3};
13. int[] A = (1,2,3);
14. int[][] A = {1,2,3};
15. Find the value of A[1] after execution of the following program.

int[] A = {0,2,4,1,3};

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

a[i] = a[(a[i] + 3) % a.length];

}

1. 0
2. 1
3. 2
4. 3
5. Array in Java are:
6. object reference
7. objects
8. Primitive data type
9. None
10. When is the object created with new keyword?
11. At run time
12. At compile time
13. Depends on the code
14. None
15. Identify the corrected definition of a package.
16. A package is a collection of editing tools
17. A package is a collection of classes
18. A package is a collection of classes and interfaces
19. A package is a collection of interfaces
20. Identify the correct restriction on static methods.
21. They must access only static data
22. They can only call other static methods
23. They cannot refer to this or super
24. i & ii
25. ii & iii
26. Only iii
27. i, ii & iii
28. Identify the keyword among the following that makes a variable belong to a class,

rather than being defined for each instance of the class.

1. final
2. static
3. volatile
4. abstract
5. Identify what can directly access and change the value of the variable res.

package com.mypackage;

public class Solution {

private int res = 100;

}

1. Any class
2. Only solution class
3. Any class that extends Solution
4. None
5. In which of the following is toString() method defined?
6. java.lang.Object
7. java.lang.String
8. java.lang.util
9. None
10. compareTo() returns
11. True
12. False
13. An int value
14. None
15. Where does the system stores parameters and local variables whenever a method is invoked?
16. Heap
17. Stack
18. Array
19. Tree
20. Identify the modifier which cannot be used for constructor.
21. public
22. protected
23. private
24. static
25. What is the variables declared in a class for the use of all methods of the class called?
26. Object
27. Instance variables
28. Reference variables
29. None
30. What is the implicit return type of constructor?
31. No return type
32. A class object in which it is defined
33. void
34. None
35. Identify the prototype of the default constructor.

public class Solution {}

1. Solution(void) {}
2. Solution() {}
3. public Solution(void) {}
4. public Solution() {}
5. Identify the correct way of declaring constructor.

public class Solution {}

1. Solution() {}
2. public Solution() {}
3. Solution(void) {}
4. Both (a) and (b)
5. Find the output of the following code.

public class Solution{

public static void main(String args[]){

int i;

for(i = 1; i < 6; i++){

if(i > 3) continue;

}

System.out.println(i);

}

}

1. 3
2. 4
3. 5
4. 6
5. How many times will “Interviewbit” be printed.

int count = 0;

do {

System.out.println(“Interviewbit”);

count++;

} while(count<10);

1. 8
2. 9
3. 10
4. 11
5. Identify the infinite loop.
6. for( ; ; )
7. for(int i=0; i<1; i--)
8. for(int i=0; ; i++)
9. All the above
10. When does Exceptions in Java arises in code sequence?
11. Run Time
12. Compilation Time
13. Can Occur Any Time
14. None of the mentioned
15. Which of these keywords is not a part of exception handling?
16. try
17. finally
18. thrown
19. catch
20. Which of these keywords must be used to monitor for exceptions?
21. try
22. finally
23. throw
24. catch
25. Which of these keywords must be used to handle the exception thrown by try block in some rational manner?
26. try
27. finally
28. throw
29. catch
30. Which of these keywords is used to manually throw an exception?
31. try
32. finally
33. throw
34. catch
35. Which of these is a super class of all exceptional type classes?
36. String
37. RuntimeExceptions
38. Throwable
39. Cachable
40. Which of these classes is related to all the exceptions that can be caught by using catch?
41. Error
42. Exception
43. RuntimeExecption
44. All of the mentioned
45. Which of these handles the exception when no catch is used?
46. Default handler
47. finally
48. throw handler
49. Java run time system
50. Which of these keywords is used to manually throw an exception?
51. try
52. finally
53. throw
54. catch
55. Which of these keywords is used to generate an exception explicitly?
56. try
57. finally
58. throw
59. catch
60. Which of these classes is related to all the exceptions that are explicitly thrown?
61. Error
62. Exception
63. Throwable
64. Throw
65. Which of these operator is used to generate an instance of an exception than can be thrown by using throw?
66. new
67. malloc
68. alloc
69. throw
70. Which of these keywords is used to by the calling function to guard against the exception that is thrown by called function?
71. try
72. throw
73. throws
74. catch

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

Colour the right answer in blue colour

1. Predict the output of following Java program

class Main {

public static void main(String args[]) {

try {

throw 10;

}

catch(int e) {

System.out.println("Got the Exception " + e);

}

}

}

1. Got the Exception 10
2. Got the Exception 0
3. Compiler Error
4. None of the above
5. Predict the output of following Java program

class Test extends Exception {}

class Main {

public static void main(String args[]) {

try {

throw new Test();

} catch(Test t) {

System.out.println("Got the Test Exception");

} finally {

System.out.println("Inside finally block ");

}

}

}

1. Got the Test Exception

Inside finally block

1. Got the Test Exception
2. Inside finally block
3. Compiler Error
4. What is the output of following Java program?

class Main {

public static void main(String args[]) {

int x = 0;

int y = 10;

int z = y/x;

}

}

1. Compiler Error
2. Compiles and runs fine
3. Compiles fine but throws ArithmeticException exception
4. None of the above
5. Observe the code and determine the action

class Base extends Exception {}

class Derived extends Base {}

public class Main {

public static void main(String args[]) {

try {

throw new Derived();

} catch(Base b) {

System.out.println("Caught base class exception");

} catch(Derived d) {

System.out.println("Caught derived class exception");

}

}

}

1. Caught base class exception
2. Caught derived class exception
3. Compiler Error because derived is not throwable
4. Compiler Error because base class exception is caught before derived class
5. Observe the code and determine the action

class Test {

public static void main (String[] args) {

try {

int a = 0;

System.out.println ("a = " + a);

int b = 20 / a;

System.out.println ("b = " + b);

} catch(ArithmeticException e) {

System.out.println ("Divide by zero error");

} finally {

System.out.println ("inside the finally block");

}

}

}

1. Compile error
2. Divide by zero error
3. a = 0

Divide by zero error

inside the finally block

1. a = 0
2. inside the finally block
3. Observe the code and determine the action

class Test {

public static void main(String[] args) {

try {

int a[]= {1, 2, 3, 4};

for (int i = 1; i <= 4; i++) {

System.out.println ("a[" + i + "]=" + a[i] + "n");

}

} catch (Exception e) {

System.out.println ("error = " + e);

} catch (ArrayIndexOutOfBoundsException e) {

System.out.println ("ArrayIndexOutOfBoundsException");

}

}

}

1. Compiler error
2. Run time error
3. ArrayIndexOutOfBoundsException
4. Error Code is printed
5. Array is printed
6. Predict the output of the following program.

class Test {

String str = "a";

void A() {

try {

str +="b";

B();

} catch (Exception e) {

str += "c";

}

}

void B() throws Exception {

try {

str += "d";

C();

} catch(Exception e) {

throw new Exception();

} finally {

str += "e";

}

str += "f";

}

void C() throws Exception {

throw new Exception();

}

void display() {

System.out.println(str);

}

public static void main(String[] args) {

Test object = new Test();

object.A();

object.display();

}

}

1. abdef
2. abdec
3. abdefc
4. None of the above
5. Predict the output of the following program.

class Test {

int count = 0;

void A() throws Exception {

try {

count++;

try {

count++;

try {

count++;

throw new Exception();

} catch(Exception ex) {

count++;

throw new Exception();

}

} catch(Exception ex) {

count++;

}

} catch(Exception ex) {

count++;

}

}

void display() {

System.out.println(count);

}

public static void main(String[] args) throws Exception {

Test obj = new Test();

obj.A();

obj.display();

}

}

1. 4
2. 5
3. 6
4. Compilation error
5. Which of these is a super class of all errors and exceptions in the Java language?
6. RuntimeExceptions
7. Throwable
8. Catchable
9. None of the above
10. The built-in base class in Java, which is used to handle all exceptions is
11. Raise
12. Exception
13. Error
14. Throwable