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2	PG Mates / RoomSharing / Flat Mates	React+Springboot+MySql
3	Tour and Travel management System	React+Springboot+MySql
4	Election commition of India (online Voting System)	React+Springboot+MySql
5	HomeRental Booking System	React+Springboot+MySql
6	Event Management System	React+Springboot+MySql
7	Hotel Management System	React+Springboot+MySql
8	Agriculture web Project	React+Springboot+MySql
9	AirLine Reservation System / Flight booking System	React+Springboot+MySql
10	E-commerce web Project	React+Springboot+MySql
11	Hospital Management System	React+Springboot+MySql
12	E-RTO Driving licence portal	React+Springboot+MySql
13	Transpotation Services portal	React+Springboot+MySql
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29	Solar Management Project	React+Springboot+MySql
30	OneStepService LinkLabourContractor	React+Springboot+MySql
31	Vehical Service Center Portal	React+Springboot+MySql
32	E-wallet Banking Project	React+Springboot+MySql
33	Blogg Application Project	React+Springboot+MySql
34	Car Parking booking Project	React+Springboot+MySql
35	OLA Cab Booking Portal	React+NextJs+Springboot+MySql
36	Society management Portal	React+Springboot+MySql
37	E-College Portal	React+Springboot+MySql
38	FoodWaste Management Donate System	React+Springboot+MySql
39	Sports Ground Booking	React+Springboot+MySql
40	BloodBank mangement System	React+Springboot+MySql

41	Bus Tickit Booking Project	React+Springboot+MySql
42	Fruite Delivery Project	React+Springboot+MySql
43	Woodworks Bed Shop	React+Springboot+MySql
44	Online Dairy Product sell Project	React+Springboot+MySql
45	Online E-Pharma medicine sell Project	React+Springboot+MySql
46	FarmerMarketplace Web Project	React+Springboot+MySql
47	Online Cloth Store Project	React+Springboot+MySql
48	Train Ticket Booking Project	React+Springboot+MySql
49	Quizz Application Project	JSP+Springboot+MySql
50	Hotel Room Booking Project	React+Springboot+MySql
51	Online Crime Reporting Portal Project	React+Springboot+MySql
52	Online Child Adoption Portal Project	React+Springboot+MySql
53	online Pizza Delivery System Project	React+Springboot+MySql
54	Online Social Complaint Portal Project	React+Springboot+MySql
55	Electric Vehical management system Project	React+Springboot+MySql
56	Online mess / Tiffin management System Project	React+Springboot+MySql
57		React+Springboot+MySql
58		React+Springboot+MySql
59		React+Springboot+MySql
60		React+Springboot+MySql

Spring Boot + React JS + MySQL Project List

Sr.No	Project Name	YouTube Link
1	Online E-Learning Hub Platform Project	https://youtu.be/KMjyBaWmgzg?si=YckHuNzs7eC84-IW
2	PG Mate / Room sharing/Flat sharing	https://youtu.be/4P9clHg3wvk?si=4uEsi0962CG6Xodp
3	Tour and Travel System Project Version 1.0	https://youtu.be/-UHOBywHaP8?si=KHHfE_A0uv725f12
4	Marriage Hall Booking	https://youtu.be/VXz0kZQi5to?si=llOS-QG3TpAFP5k7
5	Ecommerce Shopping project	https://youtu.be/vJ_C6LkhrZ0?si=YhcBylSErvdn7paq
6	Bike Rental System Project	https://youtu.be/FIzsAmIBCbk?si=7ujQTJqEgkQ8ju2H
7	Multi-Restaurant management system	https://youtu.be/pvV-pM2Jf3s?si=PgvnT-yFc8ktrDxB
8	Hospital management system Project	https://youtu.be/IynIouBZvY4?si=CXzQs3BsRkjKhZCw
9	Municipal Corporation system Project	https://youtu.be/cVMx9NVyI4I?si=qX0oQt-GT-LR_5jF
10	Tour and Travel System Project version 2.0	https://youtu.be/_4u0mB9mHXE?si=gDiAhKBowi2gNUKZ

Sr.No	Project Name	YouTube Link
11	Tour and Travel System Project version 3.0	https://youtu.be/Dm7nOdpasWg?si=P_Lh2gcOFhlyudug
12	Gym Management system Project	https://youtu.be/J8_7Zrkg7ag?si=LcxV51ynfUB7OptX
13	Online Driving License system Project	https://youtu.be/3yRzsMs8TLE?si=JRI_z4FDx4Gmt7fn
14	Online Flight Booking system Project	https://youtu.be/m755rOwdk8U?si=HURvAY2VnizIyJlh
15	Employee management system project	https://youtu.be/lD1iE3W_GRw?si=Y_jv1xV_BljhrD0H
16	Online student school or college portal	https://youtu.be/4A25aEKfei0?si=RoVgZtxMk9TPdQvD
17	Online movie booking system project	https://youtu.be/Lfjv_U74SC4?si=fiDvrhhrjb4KSlSm
18	Online Pizza Delivery system project	https://youtu.be/Tp3izreZ458?si=8eWAOzA8SVdNwlyM
19	Online Crime Reporting system Project	https://youtu.be/0UlzReSk9tQ?si=6vN0e70TVY1GOwPO
20	Online Children Adoption Project	https://youtu.be/3T5HC2HKyT4?si=bntP78niYH802I7N

1. Which of the following is smallest integer data type ?

A. int
B. byte
C. short
D. long

View Answer

Ans : B
Explanation: smallest integer data type is Byte.

2. Which of the following is not a primitive data type ?

A. byte
B. enum
C. short
D. int

View Answer

Ans : B
Explanation: enum is not a primitve data type..

3. Integer Data type does not include following primitive data type _____.

A. long
B. byte
C. short
D. double

View Answer

Ans : D
Explanation: Integers includes byte, short, int, and long.

4. Which of the following data types comes under floating data types ?

A. int
B. double
C. long
D. byte

View Answer

Ans : B
Explanation: Floating-point numbers includes float and double

5. Character data type cannot store following value.

A. Digit
B. Letter
C. Special Character
D. String

View Answer

Ans : D

Explanation: Character data type cannot store following value is string.

6. Range of Byte Data Type is _____.

A. -128 to 128
B. -127 to 127
C. -127 to 128
D. -128 to 127

View Answer

Ans : D
Explanation: Range of Byte Data Type is -128 to 127.

7. What is size of integer in Java Programming.

A. 1 Bytes
B. 2 Bytes
C. 4 Bytes
D. 8 Bytes

View Answer

Ans : C
Explanation: The size of integer in Java Programming is 4 Bytes.

8. Which of the following data type(s) can store 64 bit Value.

A. boolean
B. int
C. float
D. long

View Answer

Ans : D
Explanation: Long is following data type(s) can store 64 bit Value .

9. Short data type has a minimum value of _____.

A. -32768
B. -32767
C. 32768
D. 32767

View Answer

Ans : A
Explanation: Short data type has a minimum value of -32,768.

10. Default value of variable having boolean data type is _____.

A. TRUE
B. FALSE
C. null
D. garbage

View Answer

Ans : B
Explanation: Default value of variable having boolean data type is False.

11. What will be the output of the program?

```
class Main {
   public static void main(String args[]) {
         int t;
         System.out.println(t);
    }
}
```

A. 0
B. garbage value
C. compiler error
D. runtime error

View Answer

Ans : C
Explanation: Unlike class members, local variables of methods must be assigned a value to before they are accessed, or it is a compile error.

12. What will be the output of the program?

```
class Test {
    public static void main(String[] args) {
      for(int i = 0; 0; i++)
      {
          System.out.println(""Hello"");
          break;
      }
    }
}
```

A. Hello
B. Empty Output
C. Compiler error
D. Runtime error

View Answer

Ans : C
Explanation: The error is in for loop where 0 is used in place of boolean value. Unlike C++, use of non boolean variables in place of bool is not allowed

13. What will be the output of the program?

```
class mainclass {
    public static void main(String args[])
    {
      boolean var1 = true;
      boolean var2 = false;
      if (var1)
         System.out.println(var1);
      else
```

```
        System.out.println(var2);
    }
}
```

A. 0
B. 1
C. TRUE
D. FALSE

View Answer

Ans : C
Explanation: True.

14. Predict the output of the following program.

```
class LFC {
    public static void main(String[] args)
    {
        Double object = new Double("2.4");
        int a = object.intValue();
        byte b = object.byteValue();
        float d = object.floatValue();
        double c = object.doubleValue();
        System.out.println(a + b + c + d );

    }
}
```

A. 8
B. 8.8
C. 8.800000095
D. 8

View Answer

Ans : C
Explanation: Arithmetic conversions are implicitly performed to cast the values to a common type. The compiler first performs integer promotion. If the operands still have different types, then they are converted to the type that appears highest in the hierarchy.

15. Which of the following are legal lines of Java code?
1. int w = (int)888.8;
2. byte x = (byte)100L;
3. long y = (byte)100;
4. byte z = (byte)100L;

A. 1 and 2
B. 2 and 3
C. 3 and 4
D. All statements are correct

View Answer

Ans : D
Explanation: Statements (1), (2), (3), and (4) are correct. (1) is correct because when a floating-point number (a double in this case) is cast to an int, it simply loses the digits after the decimal. (2) and (4) are correct because a long can be cast into a byte. If the long is over 127, it loses its most significant (leftmost) bits. (3) actually works, even though a cast is not necessary, because a long can store a byte.

16. What is the output of this program?

```
class average {
        public static void main(String args[])
        {
            double num[] = {5.5, 10.1, 11, 12.8, 56.9, 2.5};
            double result;
            result = 0;
            for (int i = 0; i<6; ++i)
                result = result + num[i];
      System.out.print(result/6);

        }
}
```

A. 16.34
B. 16.56666664
C. 16.46666667
D. 16.76666667

View Answer

Ans : C
Explanation: No Explanation.

17. What is the output of this program?

```
class output {
        public static void main(String args[])
        {
            double a, b,c;
            a = 4.0/0;
            b = 0/3.0;
            c=0/0.0;

      System.out.println(a);
            System.out.println(b);
            System.out.println(c);
        }
}
```

A. Infinity
B. 0
C. NaN
D. all of the mentioned

View Answer

Ans : D
Explanation: For floating point literals, we have constant value to represent (10/0.0) infinity either positive or negative and also have NaN (not a number for undefined like 0/0.0), but for the integral type, we don't have any constant that's why we get an arithmetic exception.

18. What will be the output of the program?

```
class increment {
```

```
        public static void main(String args[])
        {
             int g = 4;
             System.out.print(++g * 8);
        }
}
```

A. 32
B. 36
C. 40
D. 48

View Answer

Ans : C
Explanation: Operator ++ has more preference than *, thus g becomes 5 and when multiplied by 8 gives 40.

19. What will be the output of the program?

```
class area {
        public static void main(String args[])
        {
             double r, pi, a;
             r = 9.8;
             pi = 3.14;
             a = pi * r * r;
             System.out.println(a);
        }
}
```

A. 301.5656
B. 301
C. 301.56
D. 301.57

View Answer

Ans : A
Explanation: The output for the following code is 301.5656.

20. What will be the output of the program?

```
class increment {
        public static void main(String args[])
        {
             int g = 6;
             System.out.print(--g * 8);
        }
}
```

A. 48
B. 40
C. 56
D. 44

View Answer

Ans : B
Explanation: Operator -- has more preference than *, thus g becomes 5 and when multiplied by 8 gives 40.

21. What is the range of short data type in Java?

A. -128 to 127
B. -32768 to 32767
C. -2147483648 to 2147483647
D. None of the mentioned

View Answer

Ans : B
Explanation: Short occupies 16 bits in memory. Its range is from -32768 to 32767.

22. Which of the following are legal lines of Java code? Â Â 1. int w = (int)888.8; Â Â 2. byte x = (byte)100L; Â Â 3. long y = (byte)100; Â Â 4. byte z = (byte)100L;

A. 1 and 2
B. 2 and 3
C. 3 and 4
D. All statements are correct

View Answer

Ans : D
Explanation: Statements (1), (2), (3), and (4) are correct. (1) is correct because when a floating-point number (a double in this case) is cast to an int, it simply loses the digits after the decimal. (2) and (4) are correct because a long can be cast into a byte. If the long is over 127, it loses its most significant (leftmost) bits. (3) actually works, even though a cast is not necessary, because a long can store a byte.

23. An expression involving byte, int, and literal numbers is promoted to which of these?

A. int
B. byte
C. long
D. float

View Answer

Ans : A
Explanation: An expression involving bytes, ints, shorts, literal numbers, the entire expression is promoted to int before any calculation is done.

24. Which of these literals can be contained in float data type variable?

A. -1.7e+308
B. -3.4E+38
C. +1.7e+308
D. -3.4E+50

View Answer

Ans : B
Explanation: Range of float data type is -(3.4e38) To +(3.4e38)

25. Which data type value is returned by all transcendental math functions?

A. int
B. float
C. double
D. long

View Answer

Ans : C
Explanation: None.

26. Which of these coding types is used for data type characters in Java?

A. ASCII
B. ISO-LATIN-1
C. UNICODE
D. None of the mentioned

View Answer

Ans : C
Explanation: Unicode defines fully international character set that can represent all the characters found in all human languages. Its range is from 0 to 65536.

27. Which one is a valid declaration of a boolean?

A. boolean b1 = 1;
B. boolean b2 = false;
C. boolean b3 = false;
D. boolean b4 = true

View Answer

Ans : C
Explanation: Boolean can only be assigned true or false literals.

28. What is the output of this program?

```
class array_output {
   public static void main(String args[])
     {
       char array_variable [] = new char[10];
       for (int i = 0; i < 10; ++i) {
            array_variable[i] = 'i';
            System.out.print(array_variable[i] + """ );
            i++;
       }
    }
}
```

A. i i i i i
B. 0 1 2 3 4
C. i j k l m
D. None of the mentioned

View Answer

Ans : A
Explanation: None. output: $ javac array_output.java $ java array_output i i i i i

29. Which of these is long data type literal?

A. 0x99fffL
B. ABCDEFG
C. 0x99fffa
D. 99671246

View Answer

Ans : A
Explanation: Data type long literals are appended by an upper or lowercase L. 0x99fffL is hexadecimal long literal.

30. Which of these can be returned by the operator &?

A. Integer
B. Boolean
C. Character
D. Integer or Boolean

View Answer

Ans : D
Explanation: We can use binary ampersand operator on integers/chars (and it returns an integer) or on booleans (and it returns a boolean).

1. What allows the programmer to destroy an object x?

A. x.finalize()
B. x.delete()
C. Runtime.getRuntime().gc()
D. Only the garbage collection system can destroy an object.

View Answer

Ans : D
Explanation: When an object is no longer referenced, it may be reclaimed by the garbage collector. If an object declares a finalizer, the finalizer is executed before the object is reclaimed to give the object a last chance to clean up resources that would not otherwise be released. When a class is no longer needed, it may be unloaded.

2. Which statement is true?

A. Programs will not run out of memory.
B. Objects that are referred to by other objects will never be garbage collected.
C. Objects that will never again be used are eligible for garbage collection.
D. Objects that can be reached from a live thread will never be garbage collected.

View Answer

Ans : D
Explanation: C See the note above on Islands of Isolation (An object is eligible for garbage collection when no live thread can access it - even though there might be references to it). B is wrong. ""Never again be used"" does not mean that there are no more references to the object. A is wrong. Even though Java applications can run out of memory there another answer supplied that is more right.

3. Which of the below is not a memory leak solution?

A. GC parameter tuning
B. Code changes
C. Process restart
D. JVM parameter tuning

View Answer

Ans : C
Explanation: Process restart is not a permanent fix to memory leak problem. The problem will resurge again..

4. Which of the below is not a Java Profiler?

A. JVM
B. JProfiler
C. JConsole
D. Eclipse Profiler

View Answer

Ans : A
Explanation: Memory leak is like holding a strong reference to an object although it would never be needed anymore. Objects that are reachable but not live are considered memory leaks. Various tools help us to identify memory leaks.

5. Which statement is true?

A. All objects that are eligible for garbage collection will be garbage collected by the garbage collector.
B. Objects from a class with the finalize() method overridden will never be garbage collected.

C. Objects with at least one reference will never be garbage collected.
D. Objects instantiated within anonymous inner classes are placed in the garbage collectible heap.

View Answer

Ans : D
Explanation: All objects are placed in the garbage collectible heap.

6. How to get prints of shared object memory maps or heap memory maps for a given process?

A. jmap
B. jvmmap
C. memorymap
D. memorypath

View Answer

Ans : A
Explanation: We can use jmap as jmap -J-d64 -heap pid.

7. What is -Xms and -Xmx while starting jvm?

A. Initial; Maximum memory
B. Initial memory
C. Maximum memory
D. Maximum; Initial memory

View Answer

Ans : A
Explanation: JVM will be started with Xms amount of memory and will be able to use a maximum of Xmx amount of memory. java -Xmx2048m -Xms256m.

8. Which of the following has the highest memory requirement?

A. Stack
B. Class
C. JVM
D. Heap

View Answer

Ans : C
Explanation: JVM is the super set which contains heap, stack, objects, pointers, etc.

9. Where is a new object allocated memory?

A. Young space
B. JVM
C. Young or Old space depending on space availability
D. Old space

View Answer

Ans : A
Explanation: A new object is always created in young space. Once young space is full, a special young collection is run where objects which have lived long enough are moved to old space and memory is freed up in young space for new objects..

10. Which of the following is a garbage collection technique?

A. Sweep model
B. Mark and sweep model
C. Space management model
D. Cleanup model

View Answer

Ans : B
Explanation: A mark and sweep garbage collection consists of two phases, the mark phase and the sweep phase. I mark phase all the objects reachable by java threads, native handles and other root sources are marked alive and others are garbage. In sweep phase, the heap is traversed to find gaps between live objects and the gaps are marked free list used for allocating memory to new objects.

11. When is the B object, created in line 3, eligible for garbage collection?

```
void start() {
        A a = new A();
        B b = new B();
        a.s(b);
        b = null; /* Line 5 */
        a = null; /* Line 6 */
        System.out.println(""start completed""); /* Line 7 */
}
```

A. after line 5
B. after line 6
C. after line 7
D. There is no way to be absolutely certain.

View Answer

Ans : D
Explanation: No explanation.

12. How many objects are eligible for garbage collection after execution of line ?

```
public class Test
{
        public static void main(String[] args)
        {
                m1(); // Line
```

```
        }
        static void m1()
        {
                Test t1 = new Test();
                Test t2 = new Test();
        }
}
```

A. 0
B. 1
C. 2
D. 3

View Answer

Ans : C
Explanation: Since t1 and t2 are local objects of m1() method, so they become eligible for garbage collection after complete execution of method unless any of them is returned.

13. After line 11 runs, how many objects are eligible for garbage collection?

```
class X2
{
        public X2 x;
        public static void main(String [] args)
        {
                X2 x2 = new X2(); /* Line 6 */
                X2 x3 = new X2(); /* Line 7 */
                x2.x = x3;
                x3.x = x2;
                x2 = new X2();
                x3 = x2; /* Line 11 */
                doComplexStuff();
        }
}
```

A. 0
B. 1
C. 2
D. 3

View Answer

Ans : C
Explanation: This is an example of the islands of isolated objects. By the time line 11 has run, the objects instantiated in lines 6 and 7 are referring to each other, but no live thread can reach either of them..

14. When is the Demo object eligible for garbage collection?

```
class Test
{
        private Demo d;
        void start()
```

```
        {
                d = new Demo();
                this.takeDemo(d); /* Line 7 */
        } /* Line 8 */
        void takeDemo(Demo demo)
        {
                demo = null;
                demo = new Demo();
        }
}
```

A. After line 7
B. After line 8
C. After the start() method completes
D. When the instance running this code is made eligible for garbage collection.

View Answer

Ans : D
Explanation: D is correct. By a process of elimination.

15. How many objects are eligible for garbage collection after execution of line 8?

```
public class Test
{
        public static void main(String [] args)
        {
                Test t1 = new Test();
                Test t2 = m1(t1); // line 6
                Test t3 = new Test();
                t2 = t3; // line 8
        }
        static Test m1(Test temp)
        {
                temp = new Test();
                return temp;
        }
}
```

A. 0
B. 1
C. 2
D. 3

View Answer

Ans : B
Explanation: By the time line 8 has executed, the only object without a reference is the one generated i.e as a result of line 6. Remember that ""Java is strictly pass by value"" so the reference variable t1 is not affected by the m1() method. We can check it using finalize() method. The statement ""System.out.println(this.hashcode())"" in finalize() method print the object hashcode value on which finalize() method is called,and then just compare the value with other objects hashcode values created in main m

16. When is the Float object, created in line 3, eligible for garbage collection?

```
public Object m()
{
        Object o = new Float(3.14F);
        Object [] oa = new Object[1];
```

```
        oa[0] = o; /* Line 5 */
        o = null; /* Line 6 */
        oa[0] = null; /* Line 7 */
        return o; /* Line 8 */
}
```

A. just after line 5
B. just after line 6
C. just after line 7
D. just after line 8

View Answer

Ans : C
Explanation: No explnation.

1. _____ can be defined as the process where one class acquires the properties (methods and fields) of another.

A. Overriding
B. Inheritance
C. Polymorphism
D. Abstraction

View Answer

Ans : B
Explanation: Inheritance can be defined as the process where one class acquires the properties (methods and fields) of another

2. The class which inherits the properties of other is known as _____

A. superclass
B. parent class
C. subclass
D. None of the above

View Answer

Ans : C
Explanation: The class which inherits the properties of other is known as subclass

3. Subclass also known as ?

A. derived class
B. child class
C. base class
D. Both A and B

View Answer

Ans : D
Explanation: subclass also known as derived class, child class.

4. The class whose properties are inherited is known as superclass.

A. TRUE
B. FALSE
C. Can be true or false
D. Can not say

View Answer

Ans : A
Explanation: True, the class whose properties are inherited is known as superclass

5. _____ is the keyword used to inherit the properties of a class.

A. inherit
B. poly
C. extends
D. super

View Answer

Ans : C
Explanation: extends is the keyword used to inherit the properties of a class.

6. The super keyword is similar to _____ keyword.

A. construct
B. this
C. class
D. extends

View Answer

Ans : B
Explanation: The super keyword is similar to this keyword.

7. A class member declared protected becomes a member of subclass of which type?

A. public member
B. protected member
C. static member
D. private member

View Answer

Ans : D
Explanation: A class member declared protected becomes a private member of subclass.

8. Which of these is correct way of inheriting class A by class B?

A. class B + class A {}
B. class B inherits class A {}
C. class B extends A {}
D. class B extends class A {}

View Answer

Ans : C
Explanation: class B extends A {} correct way of inheritance.

9. _____ is a way of saying: This object is a type of that object.

A. IS-A
B. HAS-A
C. ARE-A
D. HAD-A

View Answer

Ans : A
Explanation: IS-A is a way of saying: This object is a type of that object.

10. A subclass inherits all the members (fields, methods, and nested classes) from its superclass

A. Yes
B. NO

C. Can be yes or no
D. Can not say

View Answer

Ans : A
Explanation: YES, A subclass inherits all the members (fields, methods, and nested classes) from its superclass.

1. Which of these keywords is used to define interfaces in Java?

A. interface
B. Interface
C. intf
D. Intf

View Answer

Ans : A
Explanation: interface keywords is used to define interfaces in Java.

2. A java interface can contain _____.

A. Abstract methods(unimplemented) and implemented methods both
B. public Abstract methods
C. public static Final Variables only
D. public static Final Variables and abstract methods both

View Answer

Ans : D
Explanation: An interface can have both final variables and abstract methods.

3. Which of these access specifiers can be used for an interface?

A. Public
B. private
C. Protected
D. All of the mentioned

View Answer

Ans : A
Explanation: Access specifier of interface is either public or no specifier. When no access specifier is used then default access specifier is used due to which interface is available only to other members of the package in which it is declared, when declared public it can be used by any code.

4. Which of the following is a correct interface?

A. abstract interface A { abstract void print(); { }}
B. abstract interface A { print(); }
C. interface A { void print() { } }
D. interface A { void print(); }

View Answer

Ans : D
Explanation: No explanation.

5. Which of the following classes directly implement Set interface?

A. Vector
B. HashSet
C. HashTable
D. LinkedList

View Answer

Ans : B
Explanation: HashSet classes directly implement Set interface

6. Which of these keywords is used by a class to use an interface defined previously?

A. Import
B. import
C. implements
D. Implements

View Answer

Ans : C
Explanation: interface is inherited by a class using implements.

7. Which is the correct way to inherit and implement the interface?

A. class Cat implements IAnimal{}
B. class Cat import IAnimal{}
C. class Cat extends IAnimal{}
D. None is correct

View Answer

Ans : A
Explanation: Classes always implements an interface. An interface can extends another interface or multiple interfaces. Hence, answer would be A.

8. which of the following is true about methods in an interface in java?

A. An interface can contain only abstract method.
B. We can define a method in an interface
C. Private and protected access modifiers can also be used to declare methods in interface
D. None of the above

View Answer

Ans : A
Explanation: In java, an interface contains only abstract method that can be public and it does not have any method implementation.

9. Which of the following is the correct way of implementing an interface salary by class manager?

A. class manager imports salary {}
B. class manager implements salary {}
C. class manager extends salary {}
D. none of the mentioned

View Answer

Ans : B
Explanation: No Explanation.

10. Which of the following is an incorrect statement about packages?

A. Interfaces are specified public if they are to be accessed by any code in the program
B. Interfaces specifies what class must do but not how it does
C. All variables in interface are implicitly final and static
D. All variables are static and methods are public if interface is defined pubic

View Answer

Ans : D
Explanation: All methods and variables are implicitly public if interface is declared public.

11. Which of these can be used to fully abstract a class from its implementation?

A. Objects
B. Packages
C. Interfaces
D. None of the Mentioned

View Answer

Ans : C
Explanation: None.

12. What is the output of this program?

```
interface calculate
{
   void cal(int item);
}
class display implements calculate
{
        int x;
        public void cal(int item)
        {
                x = item * item;
        }
}
class Main
{
   public static void main(String args[])
   {
    display arr = new display();
    arr.x = 0;
    arr.cal(2);
    System.out.print(arr.x);
   }
}
```


A. 0
B. 2
C. 4
D. None of the mentioned

View Answer

Ans : C
Explanation: None. Output: $ javac interfaces.java $ java interfaces 4

13. All methods must be implemented of an interface.

A. TRUE
B. FALSE
C. Can be true or false
D. can not say

View Answer

Ans : A
Explanation: Concrete classes must implement all methods in an interface. Through interface multiple inheritance is possible.

14. What type of variable can be defined in an interface?

A. public static
B. private final
C. public final
D. static final

View Answer

Ans : D
Explanation: variable defined in an interface is implicitly final and static. They are usually written in capital letters.

15. What does an interface contain?

A. Method definition
B. Method declaration
C. Method declaration and definition
D. Method name

View Answer

Ans : B
Explanation: Interface contains the only declaration of the method.

16. What type of methods an interface contain by default?

A. abstract
B. static
C. final
D. private

View Answer

Ans : A
Explanation: By default, interface contains abstract methods. The abstract methods need to be implemented by concrete classes.

17. What will happen if we provide concrete implementation of method in interface?

A. The concrete class implementing that method need not provide implementation of that method
B. Runtime exception is thrown
C. Compilation failure
D. Method not found exception is thrown

View Answer

Ans : C
Explanation: The methods of interfaces are always abstract. They provide only method definition. Output: $ javac interfaces.java $ java interfaces 4

18. What happens when a constructor is defined for an interface?

A. Compilation failure
B. Runtime Exception
C. The interface compiles successfully
D. The implementing class will throw exception

View Answer

Ans : A
Explanation: Constructor is not provided by interface as objects cannot be instantiated.

19. What happens when we access the same variable defined in two interfaces implemented by the same class?

A. Compilation failure
B. Runtime Exception
C. The JVM is not able to identify the correct variable
D. The interfaceName.variableName needs to be defined

View Answer

Ans : D
Explanation: The JVM needs to distinctly know which value of variable it needs to use. To avoid confusion to the JVM interfaceName.variableName is mandatory.

20. Can "abstract" keyword be used with constructor, Initialization Block, Instance Initialization and Static Initialization Block.

A. TRUE
B. FALSE
C. Can be true or false
D. can not say

View Answer

Ans : B
Explanation: No, Constructor, Static Initialization Block, Instance Initialization Block and variables cannot be abstract.

1. A class which is declared with the _____ keyword is known as an abstract class in Java.

A. abstract
B. util
C. extends
D. None of the above

View Answer

Ans : A
Explanation: A class which is declared with the abstract keyword is known as an abstract class in Java.

2. Abstract class can have constructors and static methods?

A. TRUE
B. FALSE
C. Abstract class can have constructors but can not have static methods.
D. Abstract class can not have constructors but can have static methods.

View Answer

Ans : A
Explanation: It can have constructors and static methods also.

3. What is the syntax of abstract class in java?

A. abstract A{}
B. abstract class A
C. abstract class A{}
D. abstract class A[]

View Answer

Ans : C
Explanation: The syntax of abstract class in java is abstract class A{}.

4. Which of these is not abstract?

A. Thread
B. AbstractList
C. List
D. None of the Mentioned

View Answer

Ans : A
Explanation: Thread is not an abstract class.

5. A method which is declared as abstract and does not have implementation is known as an _____?

A. Abstract Interface
B. Abstract Thread
C. Abstract List
D. abstract Method

View Answer

Ans : D
Explanation: A method which is declared as abstract and does not have implementation is known as an abstract method.

6. Which of these packages contains abstract keyword?

A. java.lang
B. java.util
C. java.io
D. java.system

View Answer

Ans : A
Explanation: java.lang packages contains abstract keyword.

7. An abstract class can have a data member, abstract method, method body (non-abstract method), constructor, and even main() method.

A. TRUE
B. FALSE
C. Can be true or false
D. can not say

View Answer

Ans : A
Explanation: Yes, An abstract class can have a data member, abstract method, method body (non-abstract method), constructor, and even main() method.

8. Which of these is not a correct statement?

A. Every class containing abstract method must be declared abstract
B. Abstract class defines only the structure of the class not its implementation
C. Abstract class can be initiated by new operator
D. Abstract class can be inherited

View Answer

Ans : C
Explanation: Abstract class cannot be directly initiated with new operator, Since abstract class does not contain any definition of implementation it is not possible to create an abstract object.

9. What will be output for the folllowing code?

```
abstract class Bank {

  private abstract void withdraw(); // Line 1
  abstract void deposit();
  public void balance(){} //Line 2
}
class office extends Bank{ // Line 3

  void deposit() { // Line 4
    // TODO Auto-generated method stub
```

```
  }
}
```

A. Compilation error in Line 1(abstract method cannot be private)
B. Compilation error in Line 2(abstract class cannot have concrete method)
C. Compilation error in Line 3(abstract class cannot be extended)
D. Compilation error in Line 4(deposit method should have public access modifier)

View Answer

Ans : A
Explanation: Yes, you are right!! As private method can't be overridden and abstract method should be overridden in child classes, so this line will give compilation error.

10. What will be output for the folllowing code?

```
abstract class Bank
{

    private String bankName;

    Bank(String bankName)
    {
        this.bankName = bankName;
    }

    public String getBankName()
    {
    return bankName;
    }
}

class office extends Bank {

  office() {
    super("Axis Bank");
  }

  public static void main(String[] args) {
    Bank bank = new office();
    System.out.println(bank.getBankName());
  }

}
```


A. Compilation error will occur because ""abstract class cannot have constructor""
B. Compilation error will occur because ""abstract class must have an abstract method""
C. Compilation error will occur while invoking the super class constructor
D. Code will be compiled successfully

View Answer

Ans : D
Explanation: As there is no syntax error, so the code will compile successfully.

1. What will be the output of the following code snippet?

```
int a=15;
int b=25;
if ((a < b ) || ( a = 5)>15)
        system.out.println(a);
else
        system.out.println(b);
```

A. Error
B. 15
C. 25
D. No output

View Answer

Ans : B
Explanation: No explanation

2. What will be the output of the program?

```
int x, y;
x=15; y=20;
if (x>15)
if(y>15)
{
        system.ptintln("y is "+y);
}
else
        system.out.ptintln("x is "+x);
```

A. Error
B. y is 20
C. x is 15
D. No output

View Answer

Ans : C
Explanation: No explanation.

3. Which two are acceptable types for x?

```
switch(x)
{
        default:
                System.out.println("Hello");
}
```

A. short
B. char
C. long
D. float

View Answer

Ans : A
Explanation: Switch statements are based on integer expressions and since both bytes and chars can implicitly be widened to an integer, these can also be used. Also shorts can be used. Short and Long are wrapper classes and reference types can not

be used as variables.

4. Which statement is true?

```
public void test(int x)
{
        int odd = 1;
        if(odd) /* Line 4 */
        {
                System.out.println("odd");
        }
        else
        {
                System.out.println("even");
        }
}
```

A. Compilation fails.
B. "odd" will always be output.
C. "even" will always be output.
D. "odd" will be output for odd values of x, and "even" for even values.

View Answer

Ans : A
Explanation: The compiler will complain because of incompatible types (line 4), the if expects a boolean but it gets an integer.

5. Which statement is true?

```
public class While
{
        public void loop()
        {
                int x= 0;
                while ( 1 ) /* Line 6 */
                {
                        System.out.print("x plus one is " + (x + 1)); /* Line 8 */
                }
        }
}
```

A. There is a syntax error on line 1.
B. There are syntax errors on lines 1 and 6.
C. There are syntax errors on lines 1, 6, and 8.
D. There is a syntax error on line 6.

View Answer

Ans : D
Explanation: Using the integer 1 in the while statement, or any other looping or conditional construct for that matter, will result in a compiler error. This is old C Program syntax, not valid Java. A, B and C are incorrect because line 1 is valid (Java is case sensitive so While is a valid class name). Line 8 is also valid because an equation may be placed in a String operation as shown.

6. What is the output of this program?

```
class selection_statements
{
```

```
        public static void main(String args[])
        {
                int var1 = 5;
                int var2 = 6;
                if ((var2 = 1) == var1)
                        System.out.print(var2);
                else
                        System.out.print(++var2);
        }
}
```

A. 1
B. 2
C. 3
D. 4

View Answer

Ans : B
Explanation: var2 is initialised to 1. The conditional statement returns false and the else part gets executed.

7. What is the output of this program?

```
class comma_operator
{
        public static void main(String args[])
        {
                int sum = 0;
                for(int i = 0, j = 0; i < 5 & j < 5; ++i, j = i + 1)
                        sum += i;
                        System.out.println(sum);
        }
}
```

A. 5
B. 6
C. 14
D. compilation error

View Answer

Ans : B
Explanation: Using comma operator, we can include more than one statement in the initialization and iteration portion of the for loop. Therefore both ++i and j = i + 1 is executed i gets the value 0,1,2,3,4 & j gets the values -0,1,2,3,4,5.

8. What will be the output of the program?

```
int i = 1, j = -1;
switch (i)
{
        case 0, 1: j = 1; /* Line 4 */
        case 2: j = 2;
        default: j = 0;
}
        System.out.println("j = " + j);
```

A. j = -1
B. j = 0

C. j = 1
D. Compilation fails.

View Answer

Ans : D
Explanation: The case statement takes only a single argument. The case statement on line 4 is given two arguments so the compiler complains.

9. In the following code snippet, which lines of code contain error?

```
int j=0;
while (j < 10)
{
        j++;
        if (j==5) continue loop;
        system.out.ptintln("j is " +j);
}
```

A. Line 2
B. Line 3
C. Line 4
D. Line 5

View Answer

Ans : A
Explanation: No explanation.

10. What is the output of this program?

```
int i = 1, j = 10;
do
{  if(i > j)
   {
     break;
   }
   j--;
} while (++i < 5);
System.out.println("i = " + i + " and j = " + j);
```

A. i = 6 and j = 5
B. i = 5 and j = 5
C. i = 6 and j = 4
D. i = 5 and j = 6

View Answer

Ans : D
Explanation: This loop is a do-while loop, which always executes the code block within the block at least once, due to the testing condition being at the end of the loop, rather than at the beginning. This particular loop is exited prematurely if i becomes greater than j.The order is, test i against j, if bigger, it breaks from the loop, decrements j by one, and then tests the loop condition, where a pre-incremented by one i is tested for being lower than 5.

11. Which of the following for loop declaration is not valid?

A. for (int i = 99; i >= 0; i / 9)
B. for (int i = 7; i <= 77; i += 7)

C. for (int i = 20; i >= 2; - -i)
D. for (int i = 2; i <= 20; i = 2* i)

View Answer

Ans : A
Explanation: The first option is not a valid declaration as i/9 is not declared correctly.

12. _____ is not a flow control statement in Java.

A. break
B. continue
C. exit()
D. return

View Answer

Ans : C
Explanation: exit() is not a flow control statement in Java. exit() terminates the currently running JVM.

13. The break statement causes an exit from _____ loop.

A. innermost
B. outermost
C. break statement causes an exit from program
D. Depends on program

View Answer

Ans : A
Explanation: The break statement causes an exit from innermost loop or switch.

14. Which of the following is an iteration statement?

A. switch
B. if-else
C. if
D. do-while

View Answer

Ans : D
Explanation: do-while is an iteration statement. Others are decision making statements.

15. What is the valid data type for variable "a" to print "Hello World"?

```
switch(a)
{
   System.out.println("Hello World");
}
```

A. int and float
B. byte and short
C. char and long
D. byte and char

View Answer

Ans : D

Explanation: The switch condition would only meet if variable "a" is of type byte or char.

1. Which statement is true?

A. catch(X x) can catch subclasses of X where X is a subclass of Exception.
B. Any statement that can throw an Exception must be enclosed in a try block.
C. The Error class is a RuntimeException.
D. Any statement that can throw an Error must be enclosed in a try block.

View Answer

Ans : A
Explanation: Option A is correct. If the class specified in the catch clause does have subclasses, any exception object that subclasses the specified class will be caught as well. Option B is wrong. The error class is a subclass of Throwable and not Runtime Exception. Option C is wrong. You do not catch this class of error. Option D is wrong. An exception can be thrown to the next method higher up the call stack.

2. Which statement is true?

A. An Error that might be thrown in a method must be declared as thrown by that method, or be handled within that method.
B. Multiple catch statements can catch the same class of exception more than once.
C. A try statement must have at least one corresponding catch block.
D. Except in case of VM shutdown, if a try block starts to execute, a corresponding finally block will always start to execute.

View Answer

Ans : D
Explanation: A is wrong. A try statement can exist without catch, but it must have a finally statement. B is wrong. A try statement executes a block. If a value is thrown and the try statement has one or more catch clauses that can catch it, then control will be transferred to the first such catch clause. If that catch block completes normally, then the try statement completes normally. C is wrong. Exceptions of type Error and RuntimeException do not have to be caught, only checked exceptions (java.lan

3. When does Exceptions in Java arises in code sequence?

A. Run Time
B. Can Occur Any Time
C. Compilation Time
D. None of the mentioned

View Answer

Ans : A
Explanation: Exceptions in Java are run-time errors.

4. Which of these keywords is not a part of exception handling?

A. finally
B. thrown
C. catch
D. try

View Answer

Ans : B
Explanation: Exceptional handling is managed via 5 keywords try, catch, throws, throw and finally.

5. Which of these keywords must be used to monitor for exceptions?

A. finally
B. throw
C. catch
D. try

View Answer

Ans : D
Explanation: Try keywords must be used to monitor for exceptions

6. Which of these keywords must be used to handle the exception thrown by try block in some rational manner?

A. finally
B. throw
C. catch
D. try

View Answer

Ans : C
Explanation: If an exception occurs within the try block, it is thrown and cached by catch block for processing.

7. Which of these keywords is used to manually throw an exception?

A. finally
B. throw
C. catch
D. try

View Answer

Ans : B
Explanation: Throw keywords is used to manually throw an exception.

8. Which of these is a super class of all errors and exceptions in the Java language?

A. Catchable
B. Throwable
C. RunTimeExceptions
D. None of the above

View Answer

Ans : B
Explanation: Throwable is a super class of all errors and exceptions in the Java language

9. In which of the following package Exception class exist?

A. java.file
B. java.lang
C. java.io
D. java.util

View Answer

Ans : B
Explanation: No explanation.

10. Which exception is thrown when divide by zero statement executes?

A. NumberFormatException
B. NullPointerException
C. ArithmeticException
D. None of these

View Answer

Ans : C
Explanation: ArithmeticException is thrown when divide by zero statement executes.

11. What is the output of this program?

```
class Main
{
        public static void main(String args[])
        {
                try
                {
                        System.out.print("Hello" + " " + 1 / 0);
                }
                catch(ArithmeticException e)
                {
                        System.out.print("World");
                }
        }
}
```

A. Hello
B. World
C. HelloWorld
D. Hello World

View Answer

Ans : B
Explanation: System.out.print() function first converts the whole parameters into a string and then prints, before ""Hello"" goes to output stream 1 / 0 error is encountered which is cached by catch block printing just ""World"".

12. What is the output of this program?

```
class Main
{
public static void main(String args[])
        {
                try
                {
                        int a, b;
                        b = 0;
                        a = 5 / b;
                        System.out.print("A");
                }
                catch(ArithmeticException e)
                {
                        System.out.print("B");
                }
```

```
        }
}
```

A. A
B. B
C. Compilation Error
D. Runtime Error

View Answer

Ans : B
Explanation: No explanation

13. What is the output of this program?

```
class Main
{
public static void main(String args[])
        {
                try
                {
                        int a, b;
                        b = 0;
                        a = 5 / b;
                        System.out.print("A");
            }
                catch(ArithmeticException e)
                {
                        System.out.print("B");
                }
                finally
                {
                        System.out.print("C");
                }
        }
}
```

A. A
B. B
C. AC
D. BC

View Answer

Ans : D
Explanation: finally keyword is used to execute the code before try and catch block end.

14. What is the output of this program?

```
class Main
{
public static void main(String args[])
        {
                try
                {
                        int i, sum;
                        sum = 10;
                        for (i = -1; i < 3 ;++i)
                                sum = (sum / i);
                }
                catch(ArithmeticException e)
```

```
                {
                        System.out.print("0");
                }
                System.out.print(sum);
        }
}
```

A. 0
B. 5
C. Compilation Error
D. Runtime Error

View Answer

Ans : C
Explanation: Value of variable sum is printed outside of try block, sum is declared only in try block, outside try block it is undefined.

15. 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);
                }
        }
}
```

A. Got the Exception 10
B. Got the Exception 0
C. Compiler Error
D. None of the above

View Answer

Ans : C
Explanation: In Java only throwable objects (Throwable objects are instances of any subclass of the Throwable class) can be thrown as exception. So basic data type can no be thrown at all.

16. What will be output for the following code?

```
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 ");
      }
```

```
  }
}
```

A. Got the Test Exception
Inside finally block
B. Got the Test Exception
C. Compiler Error
D. Inside finally block

View Answer

Ans : A
Explanation: In Java, the finally is always executed after the try-catch block. This block can be used to do the common cleanup work. There is no such block in C++.

17. Output of following Java program?

```
class Main {
        public static void main(String args[])
        {
                int x = 0;
                int y = 10;
                int z = y/x;
        }
}
```

A. Compiler Error
B. Compiles and runs fine
C. Compiles fine but throws ArithmeticException exception
D. None of the above

View Answer

Ans : C
Explanation: ArithmeticException is an unchecked exception, i.e., not checked by the compiler. So the program compiles fine.

18. What will be output for the following code?

```
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");
                }
        }
}
```

A. Caught base class exception
B. Caught derived class exception
C. Compiler Error because derived is not throwable
D. Compiler Error because base class exception is caught before derived class

View Answer

Ans : D
Explanation: No explanation.

19. What will be output for the following code?

```
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");
                }
        }
}
```

A. Compile error
B. Divide by zero error
C. Divide by zero error
inside the finally block
D. inside the finally block

View Answer

Ans : C
Explanation: On division of 20 by 0, divide by zero exception occurs and control goes inside the catch block. Also, the finally block is always executed whether an exception occurs or not.

20. What is the output of this program?

```
class Main
{
        public static void main(String[] args)
        {
                try
                {
                        return;
                }
                finally
                {
                        System.out.println( "Finally" );
                }
```

```
        }
}
```

A. Finally
B. Compilation fails.
C. The code runs with no output.
D. An exception is thrown at runtime.

View Answer

Ans : A
Explanation: If you put a finally block after a try and its associated catch blocks, then once execution enters the try block, the code in that finally block will definitely be executed

21. Which of these is a super class of all exceptional type classes?

A. String
B. RuntimeExceptions
C. Throwable
D. Cacheable

View Answer

Ans : C
Explanation: All the exception types are subclasses of the built in class Throwable.

22. Which of these class is related to all the exceptions that can be caught by using catch?

A. Error
B. Exception
C. RuntimeExecption
D. All of the mentioned

View Answer

Ans : B
Explanation: Error class is related to java run time error that can't be caught usually, RuntimeExecption is subclass of Exception class which contains all the exceptions that can be caught.

23. Which of these class is related to all the exceptions that cannot be caught?

A. Error
B. Exception
C. RuntimeExecption
D. All of the mentioned

View Answer

Ans : A
Explanation: Error class is related to java run time error that can't be caught usually, RuntimeExecption is subclass of Exception class which contains all the exceptions that can be caught.

24. Which of these handles the exception when no catch is used?

A. Default handler
B. finally
C. throw handler
D. Java run time system

View Answer

Ans : A
Explanation: None.

25. What exception thrown by parseInt() method?

A. ArithmeticException
B. ClassNotFoundException
C. NullPointerException
D. NumberFormatException

View Answer

Ans : D
Explanation: parseInt() method parses input into integer. The exception thrown by this method is NumberFormatException.

26. What is the output of this program?

```
class Main
{
public static void main(String args[])
  {
   try
   {
    System.out.print("Hello" + " " + 1 / 0);
   }
   finally
   {
    System.out.print("World");
   }
  }
}
```

A. Hello
B. World
C. Compilation Error
D. First Exception then World

View Answer

Ans : D
Explanation: None. Output: $ javac exception_handling.java $ java exception_handling Exception in thread ""main"" java.lang.ArithmeticException: / by zero World

27. What is the output of this program?

```
class Main
{
public static void main(String args[])
  {
   try
   {
    int i, sum;
    sum = 10;
    for (i = -1; i < 3 ;++i)
    {
     sum = (sum / i);
     System.out.print(i);
    }
```

```
   }
   catch(ArithmeticException e)
   {
    System.out.print("0");
   }
  }
}
```

A. -1
B. 0
C. -10
D. -101

View Answer

Ans : C
Explanation: For the 1st iteration -1 is displayed. The 2nd exception is caught in catch block and 0 is displayed. Output: $ javac exception_handling.java $ java exception_handling -10

28. Which of these operator is used to generate an instance of an exception than can be thrown by using throw?

A. new
B. malloc
C. alloc
D. thrown

View Answer

Ans : A
Explanation: new is used to create an instance of an exception. All of java's built in run-time exceptions have two constructors: one with no parameters and one that takes a string parameter.

29. Which of these keywords is used to by the calling function to guard against the exception that is thrown by called function?

A. try
B. throw
C. throws
D. catch

View Answer

Ans : C
Explanation: If a method is capable of causing an exception that it does not handle. It must specify this behaviour the behaviour so that callers of the method can guard themselves against that exception. This is done by using throws clause in methods declaration.

30. What is the output of this program?

```
class Main
{
public static void main(String args[])
    {
     try
     {       System.out.print("A");
      throw new NullPointerException ("Hello");
     }
     catch(ArithmeticException e)
```

```
    {
     System.out.print("B");
    }
   }
}
```

A. A
B. B
C. Hello
D. NullPointerException

View Answer

Ans : D
Explanation: None. Output: $ javac exception_handling.java $ java exception_handling Exception in thread ""main"" java.lang.NullPointerException: Hello at exception_handling.main

31. What is the output of this program?

```
class Main
{
public static void main(String[] args)
  {
   try
   {
    return;
   }
   finally
   {
    System.out.println( "Finally" );
   }
  }
}
```

A. Finally
B. Compilation fails
C. The code runs with no output
D. An exception is thrown at runtime

View Answer

Ans : A
Explanation: Because finally will execute always.

32. A single try block must be followed by which of these?

A. finally
B. catch
C. finally & catch
D. none of the mentioned

View Answer

Ans : C
Explanation: try block can be followed by any of finally or catch block, try block checks for exceptions and work is performed by finally and catch block as per the exception. B is wrong. A try statement executes a block. If a value is thrown and the try statement has one or more catch clauses that can catch it, then control will be transferred to the first such catch clause. If that catch block completes normally, then the try statement completes normally. C is wrong. Exceptions of type Error and Runt

33. Which of these exceptions handles the divide by zero error?

A. ArithmeticException
B. MathException
C. IllegalAccessException
D. IllegarException

View Answer

Ans : A
Explanation: None.

34. Which of these exceptions will occur if we try to access the index of an array beyond its length?

A. ArithmeticException
B. ArrayException
C. ArrayIndexException
D. ArrayIndexOutOfBoundsException

View Answer

Ans : D
Explanation: ArrayIndexOutOfBoundsException is a built in exception that is caused when we try to access an index location which is beyond the length of an array.

35. What is the output of this program?

```
class Main
{
public static void main(String args[])
  {
   try
   {
    int a = args.length;
    int b = 10 / a;
    System.out.print(a);
   }
   catch (ArithmeticException e)
   {
    System.out.println("1");
   }
  }
}
```

A. 0
B. 1
C. Compilation Error
D. Runtime Error

View Answer

Ans : B
Explanation: None. Output: advertisement $ javac exception_handling.java $ java exception_handling 1

1. which class is used to work with files in java?

A. Except class
B. File Class
C. This class
D. io class

View Answer

Ans : B
Explanation: In Java, with the help of File Class, we can work with files.

2. File Class is inside which package?

A. java.util
B. java.awt
C. java.lang
D. java.io

View Answer

Ans : D
Explanation: File Class is inside the java.io package.

3. File handling means _____ to a file.

A. reading data
B. writing data
C. reading and writing data
D. None of the above

View Answer

Ans : C
Explanation: file handling means reading and writing data to a file.

4. In Java, a sequence of data is known as a stream.

A. TRUE
B. FALSE
C. Can be true or false
D. Can not say

View Answer

Ans : A
Explanation: True, In Java, a sequence of data is known as a stream.

5. How many types of streams there in java?

A. 1
B. 2
C. 3
D. 4

View Answer

Ans : B

Explanation: There are two types of streams : Input Stream AND Output Stream

6. Which method is used to reads one byte of data from the input stream?

A. mark()
B. input()
C. read()
D. reset()

View Answer

Ans : C
Explanation: read() : Reads one byte of data from the input stream.

7. Which method is used to forces to write all the data present in an output stream to the destination?

A. close()
B. write()
C. flush()
D. Any of the above

View Answer

Ans : C
Explanation: flush() : Forces to write all the data present in an output stream to the destination.

8. Which method is used to create a new file in Java?

A. file.createNewFile()
B. file.createFile()
C. file.addFile()
D. file.makeFile()

View Answer

Ans : A
Explanation: file.createNewFile()

9. Which method is used to delete a file in Java?

A. file.deleteFile()
B. file.remove()
C. file.erase()
D. file.delete()

View Answer

Ans : D
Explanation: file.delete()

10. The input stream is used to read data from numerous input devices like the keyboard, network, etc.

A. TRUE
B. FALSE

C. Can be true or false
D. Can not say

View Answer

Ans : A
Explanation: True, The input stream is used to read data from numerous input devices like the keyboard, network, etc

1. Which of the following can be operands of arithmetic operators?

A. Characters
B. Boolean
C. Numeric
D. Both Numeric & Characters

View Answer

Ans : D
Explanation: The operand of arithmetic operators can be any of numeric or character type, But not boolean.

2. Modulus operator, %, can be applied to which of these?

A. Both Integers and floating - point numbers
B. Integers
C. Floating - point numbers
D. None of the mentioned

View Answer

Ans : A
Explanation: Modulus operator can be applied to both integers and floating point numbers..

3. Decrement operator, â^'â^', decreases the value of variable by what number?

A. 1
B. 2
C. 3
D. 4

View Answer

Ans : A
Explanation: Decrement operator, â^'â^', decreases the value of variable by 1.

4. Which of these statements are incorrect?

A. Assignment operators can be used only with numeric and character data type
B. Assignment operators are more efficiently implemented by Java run-time system than their equivalent long forms
C. Assignment operators run faster than their equivalent long forms
D. None of the mentioned

View Answer

Ans : D
Explanation: None of the mentioned.

5. Can 8 byte long data type be automatically type cast to 4 byte float data type?

A. TRUE
B. FALSE
C. Can be true or false
D. can not say

View Answer

Ans : A
Explanation: Both data types have different memory representation that is why 8-byte integral data type can be stored to 4-byte floating point data type.

6. Evaluate the value of the expression?

```
6 - 2 + 10 % 4 + 7
```

A. 14
B. 12
C. 13
D. 10

View Answer

Ans : C
Explanation: Output of the expression is 13.

7. What is/are highest order precedence operator(s) in Java?

A. ( )
B. { }
C. Both A & B
D. None of these

View Answer

Ans : C
Explanation: Parentheses(), Array subscript{} and Member selection- have the same precedence.

8. The && and || operators

A. Compare two boolean values
B. Compare two numeric values
C. Combine two boolean values
D. Combine two numeric values

View Answer

Ans : C
Explanation: Logical AND(&&) and Logical OR(||) combine two boolean values.

9. Which of the following is the correct expression that evaluates to true if the number x is between 1 and 100 or the number is negative?

A. ((x < 100) && (x > 1)) && (x < 0)
B. ((x < 100) && (x > 1)) || (x < 0)
C. (1 > x > 100) || (x < 0)
D. 1 < x < 100 || x < 0

View Answer

Ans : B
Explanation: No explanation.

10. Select from among the following character escape code which is not available in Java.

A. \\
B. \v
C. \a
D. \t

View Answer

Ans : C
Explanation: No explanation.

11. What will be the output of the program?

```
class Main {
    public static void main(String [] args)
   {
     Main p = new Main();
     p.start();
   }
   void start()
   {
    long [] a1 = {3,4,5};
    long [] a2 = fix(a1);
        System.out.print(a1[0] + a1[1] + a1[2] + " ");
        System.out.println(a2[0] + a2[1] + a2[2]);
   }
   long [] fix(long [] a3)
   {
        a3[1] = 7;
        return a3;
   }
}
```

A. 12 15
B. 15 15
C. 3 7 5 3 7 5
D. 3 4 5 3 7 5

View Answer

Ans : B
Explanation: The reference variables a1 and a3 refer to the same long array object. When the [1] element is updated in the fix() method, it is updating the array referred to by a1. The reference variable a2 refers to the same array object. So Output: 3+7+5+"" ""3+7+5 Output: 15 15 Because Numeric values will be added

12. What will be the output of the program?

```
class Main {
    public static void main(String [] args)
        {
         Main p = new Main();
         p.start();
        }
        void start()
        {
         boolean b1 = false;
         boolean b2 = fix(b1);
         System.out.println(b1 + " " + b2);
        }
        boolean fix(boolean b1)
        {
```

```
        b1 = true;
        return b1;
       }
}
```

A. true true
B. true false
C. false true
D. false false

View Answer

Ans : C
Explanation: The boolean b1 in the fix() method is a different boolean than the b1 in the start() method. The b1 in the start() method is not updated by the fix() method.

13. What will be the output of the program?

```
class Main {
   public static void main(String [] args)
        {
         Main p = new Main();
         p.start();
        }
        void start()
        {
         String s1 = "s";
         String s2 = fix(s1);
         System.out.println(s1 + " " + s2);
        }
        String fix(String s1)
        {
         s1 = s1 + "st";
         System.out.print(s1 + " ");
         return "st";
        }
}
```

A. s st
B. sst st
C. st s st
D. sst s st

View Answer

Ans : D
Explanation: When the fix() method is first entered, start()'s s1 and fix()'s s1 reference variables both refer to the same String object (with a value of ""s""). Fix()'s s1 is reassigned to a new object that is created when the concatenation occurs (this second String object has a value of ""sst""). When the program returns to start(), another String object is created, referred to by s2 and with a value of ""st"".

14. Which of the following will produce an answer that is closest in value to a double, d, while not being greater than d?

A. (int)Math.min(d);
B. (int)Math.abs(d);
C. (int)Math.max(d);
D. (int)Math.floor(d);

View Answer

Ans : D
Explanation: The casting to an int is a smokescreen.

15. Predict the output of following Java Program?

```
class Test {
        public static void main(String args[]) {
         int x = -4;
         System.out.println(x>>1);
         int y = 4;
         System.out.println(y>>1);
        }
}
```

A. Compiler Error: Operator >> cannot be applied to negative numbers
B. -2
2
C. 2
D. 2
2

View Answer

Ans : B
Explanation: No explantion.

16. With x = 0, which of the following are legal lines of Java code for changing the value of x to 1?
1. x++;
2. x = x + 1;
3. x += 1;
4. x =+ 1;

A. 1, 2 & 3
B. 1 & 4
C. 1, 2, 3 & 4
D. 3 & 2

View Answer

Ans : C
Explanation: Operator ++ increases value of variable by 1. x = x + 1 can also be written in shorthand form as x += 1. Also x =+ 1 will set the value of x to 1.

17. What is the output of this program?

```
class Main {
   public static void main(String args[])
        {
         double var1 = 2 + 4;
         double var2 = var1 / 4;
         int var3 = 2 + 4;
         int var4 = var3 / 4;
         System.out.print(var2 + " " + var4);
        }
}
```

A. 0 1
B. 1 1
C. 1.5 1
D. 1.5 1.0

View Answer

Ans : C
Explanation: No Explanation.

18. What will be the output of the program?

```
class Main {
   public static void main(String [] args)
        {
         int x=20;
         String sup = (x < 15) ? "s" : (x < 22)? "t" : "h";
         System.out.println(sup);
        }
}
```

A. s
B. t
C. h
D. Compilation fails

View Answer

Ans : B
Explanation: This is an example of a nested ternary operator. The second evaluation (x < 22) is true, so the ""t"" value is assigned to sup.

19. What will be the output of the program?

```
class Bitwise
{
        public static void main(String [] args)
        {
         int x = 11 & 9;
         int y = x ^ 3;
         System.out.println( y | 12 );
        }
}
```

A. 7
B. 0
C. 14
D. 8

View Answer

Ans : C
Explanation: The & operator produces a 1 bit when both bits are 1. The result of the & operation is 9. The ^ operator produces a 1 bit when exactly one bit is 1; the result of this operation is 10. The | operator produces a 1 bit when at least one bit is 1; the result of this operation is 14.

20. What is the output of this program?

```
class increment
{
        public static void main(String args[])
        {
         int g = 5;
         System.out.print(++g * 8);
        }
}
```

A. 44
B. 56
C. 48
D. 40

View Answer

Ans : C
Explanation: Operator ++ has more preference than *, thus g becomes 4 and when multiplied by 8 gives 32.

21. What is the output of relational operators?

A. Integer
B. Boolean
C. Characters
D. Double

View Answer

Ans : B
Explanation: None.

22. Which of these is returned by "greater than", "less than" and "equal to" operators?

A. Integers
B. Floating - point numbers
C. Boolean
D. None of the mentioned

View Answer

Ans : C
Explanation: All relational operators return a boolean value ie. true and false.

23. Which of the following operators can operate on a boolean variable?

A. &&
B. ==
C. ?:
D. +=

View Answer

Ans : D
Explanation: Operator Short circuit AND, &&, equal to, == , ternary if-then-else, ?:, are boolean logical operators. += is an arithmetic operator it can operate only on numeric values.

24. Which of these operators can skip evaluating right hand operand?

A. !
B. |
C. &
D. &&

View Answer

Ans : D
Explanation: Operator short circuit and, &&, and short circuit or, ||, skip evaluating right hand operand when output can be determined by left operand alone.

25. Which of these statements is correct?

A. true and false are numeric values 1 and 0
B. true and false are numeric values 0 and 1
C. true is any non zero value and false is 0
D. true and false are non numeric values

View Answer

Ans : D
Explanation: True and false are keywords, they are non numeric values which do not relate to zero or non zero numbers. true and false are boolean values.

26. What is the output of this program?

```
class Relational_operator
{
        public static void main(String args[])
        {
                int var1 = 5;
                int var2 = 6;
                System.out.print(var1 > var2);
        }
}
```

A. 1
B. 0
C. TRUE
D. FALSE

View Answer

Ans : D
Explanation: Operator > returns a boolean value. 5 is not greater than 6 therefore false is returned. output: $ javac Relational_operator.java $ java Relational_operator false

27. What is the output of this program?

```
class ternary_operator
{
        public static void main(String args[])
        {
                int x = 3;
                int y = ~ x;
                int z;
                z = x > y ? x : y;
```

```
                System.out.print(z);
        }
}
```

A. 0
B. 1
C. 3
D. -4

View Answer

Ans : C
Explanation: None. output: $ javac ternary_operator.java $ java ternary_operator 3

28. What is the output of this program?

```
class Output
{
        public static void main(String args[])
        {
                int x , y = 1;
                x = 10;
                if (x != 10 && x / 0 == 0)
                        System.out.println(y);
                else
                        System.out.println(++y);
        }
}
```

A. 1
B. 2
C. Runtime error owing to division by zero in if condition
D. Unpredictable behavior of program

View Answer

Ans : B
Explanation: Operator short circuit and, &&, skips evaluating right hand operand if left hand operand is false thus division by zero in if condition does not give an error. output: $ javac Output.java $ java Output 2

29. What is the output of this program?

```
class Output
{
        public static void main(String args[])
        {
                boolean a = true;
                boolean b = false;
                boolean c = a ^ b;
                System.out.println(!c);
        }
}
```

A. 0
B. 1
C. FALSE
D. TRUE

View Answer

Ans : C
Explanation: None. output: $ javac Output.java $ java Output false

30. Which of these have highest precedence?

A. ()
B. ++
C. *
D. >>

View Answer

Ans : A
Explanation: Order of precedence is (highest to lowest) a -> b -> c -> d.

31. What should be expression1 evaluate to in using ternary operator as in this line?

```
expression1 ?   expression2  :  expression3
```

A. Integer
B. Floating - point numbers
C. Boolean
D. None of the mentioned

View Answer

Ans : C
Explanation: The controlling condition of ternary operator must evaluate to boolean.

32. What is the value stored in x in following lines of code?

```
int x, y, z;
x = 0;
y = 1;
x = y = z = 8;
```

A. 0
B. 1
C. 9
D. 8

View Answer

Ans : D
Explanation: None.

33. What is the order of precedence (highest to lowest) of following operators?
1. &
2. ^
3. ?:

A. 1 -> 2 -> 3
B. 2 -> 1 -> 3

C. 3 -> 2 -> 1
D. 2 -> 3 -> 1

View Answer

Ans : A
Explanation: None.

34. What is the output of this program?

```
class operators
{
        public static void main(String args[])
        {
                int var1 = 5;
                int var2 = 6;
                int var3;
                var3 = ++ var2 * var1 / var2 + var2;
                System.out.print(var3);
        }
}
```

A. 10
B. 11
C. 12
D. 56

View Answer

Ans : C
Explanation: Operator ++ has the highest precedence than / , * and +. var2 is incremented to 7 and then used in expression, var3 = 7 * 5 / 7 + 7, gives 12. output: $ javac operators.java $ java operators 12

35. What is the output of this program?

```
class Main
{
public static void main(String args[])
        {
                int x = 8;
                System.out.println(++x * 3 + " " + x);
        }
}
```

A. 24 8
B. 24 9
C. 27 8
D. 27 9

View Answer

Ans : D
Explanation: Operator ++ has higher precedence than multiplication operator, *, x is incremented to 9 than multiplied with 3 giving 27. output: $ javac operators.java $ java operators 27 9

1. Package in Java is a mechanism to encapsulate a _____.

A. Classes
B. Sub Packages
C. Interfaces
D. All of the above

View Answer

Ans : D
Explanation: Package in Java is a mechanism to encapsulate a group of classes, sub packages and interfaces.

2. Which of these keywords is used to define packages in Java?

A. pkg
B. Pkg
C. package
D. Package

View Answer

Ans : C
Explanation: package keywords is used to define packages in Java.

3. Package names and directory structure are closely related.

A. TRUE
B. FALSE
C. can be true or false
D. can not say

View Answer

Ans : A
Explanation: Package names and directory structure are closely related is true statement.

4. An _____ statement can be used to access the classes and interface of a different package from the current package.

A. instanceOf
B. import
C. extends
D. implement

View Answer

Ans : B
Explanation: This is the keyword which can be used to access the interface of a different package from the current package.

5. Which of the following packages is used to includes classes to create user interface like Button and Checkbox?

A. java.lang
B. java.net
C. java.awt
D. java.io

View Answer

Ans : C
Explanation: java.awt Includes classes to create user interface like Button and Checkbox

6. Which of the following packages is used to includes utility classes like Calendar, Collection, Date?

A. java.lang
B. java.net
C. java.awt
D. java.util

View Answer

Ans : D
Explanation: java.util Includes utility classes like Calendar, Collection, Date.

7. Which of this access specifies can be used for a class so that its members can be accessed by a different class in the same package?

A. Public
B. Protected
C. No Modifier
D. All of the mentioned

View Answer

Ans : D
Explanation: Either we can use public, protected or we can name the class without any specifier.

8. Which of the following is the correct way of importing an entire package "pkg"?

A. import pkg.
B. Import pkg.
C. import pkg.*
D. Import pkg.*

View Answer

Ans : C
Explanation: Operator * is used to import the entire package.

9. Which of the following is false statement about package in java?

A. Packages are used for preventing naming conflicts
B. Providing controlled access: protected and default have package level access control.
C. Packages cannot be considered as data encapsulation
D. Both B and C

View Answer

Ans : C
Explanation: Packages cannot be considered as data encapsulation is false statement about package in java.

10. Packages that are inside another package are the _____

A. packages
B. nested packages
C. util subpackages
D. subpackages

View Answer

Ans : D
Explanation: Packages that are inside another package are the subpackages.

1. Which of the following would compile without error?

A. int a = Math.abs(-5);
B. int b = Math.abs(5.0);
C. int d = Math.abs(5L);
D. int c = Math.abs(5.5F);

View Answer

Ans : A
Explanation: The return value of the Math.abs() method is always the same as the type of the parameter passed into that method. In the case of A, an integer is passed in and so the result is also an integer which is fine for assignment to ""int a"". The values used in B, C & D respectively are a double, a float and a long. The compiler will complain about a possible loss of precision if we try to assign the results to an ""int"".

2. Which of these classes encapsulate runtime state of an object?

A. Class
B. Runtime
C. System
D. Cache

View Answer

Ans : A
Explanation: Class encapsulate runtime state of an object.

3. Which of these classes is not included in java.lang?

A. Class
B. Integer
C. Array
D. Byte

View Answer

Ans : C
Explanation: Array class is a member of java.util..

4. Which of the following will produce an answer that is closest in value to a double, d, while not being greater than d?

A. (int)Math.abs(d);
B. (int)Math.max(d);
C. (int)Math.min(d);
D. (int)Math.floor(d);

View Answer

Ans : D
Explanation: The casting to an int is a smokescreen.

5. Which of these methods returns the class of an object?

A. getClass()
B. WhoseObject()

C. Class()
D. WhoseClass()

View Answer

Ans : A
Explanation: getClass() methods returns the class of an object.

6. Which of these class have only one field "TYPE"?

A. Void
B. Process
C. System
D. Runtime

View Answer

Ans : A
Explanation: The Void class has one field, TYPE, which holds a reference to the Class object for the type void. I

7. Which of the following method of Process class can terminate a process?

A. void kill()
B. void destroy()
C. void terminate()
D. void exit()

View Answer

Ans : B
Explanation: Kills the subprocess. The subprocess represented by this Process object is forcibly terminated

8. Standard output variable "out" is defined in which class?

A. Void
B. Process
C. Runtime
D. System

View Answer

Ans : D
Explanation: Standard output variable "out" is defined in System class. out is usually used in print statement i:e System.out.print().

9. Which of these class can encapsulate an entire executing program?

A. Void
B. Process
C. Runtime
D. System

View Answer

Ans : B
Explanation: None.

10. Which of the following is method of System class is used to find how long a program takes to execute?

A. currenttime()
B. currentTime()
C. currentTimeMillis()
D. currenttimeMillis()

View Answer

Ans : C
Explanation: None.

11. Which of these is a process of converting a simple data type into a class?

A. type casting
B. type conversion
C. type wrapping
D. None of the Mentioned

View Answer

Ans : B
Explanation: type conversion is a process of converting a simple data type into a class

12. Which of the following is method of wrapper Float for converting the value of an object into byte?

A. Bytevalue()
B. byte bytevalue()
C. bytevalue()
D. Byte Bytevalue()

View Answer

Ans : B
Explanation: byte bytevalue() is method of wrapper Float for converting the value of an object into byte

13. Which of these methods is used to check for infinitely large and small values?

A. isInfinite()
B. Isinfinite()
C. isNaN()
D. IsNaN()

View Answer

Ans : A
Explanation: isinfinite() method returns true is the value being tested is infinitely large or small in magnitude.

14. Which of the following methods is a method of wrapper Integer for obtaining hash code for the invoking object?

A. Integer hashcode()
B. int hashcode()
C. int hashCode()
D. int hash()

View Answer

Ans : C
Explanation: int hashCode() methods is a method of wrapper Integer for obtaining hash code for the invoking object

15. Which of the following method of Process class can terminate a process??

A. void terminate()
B. void destroy()
C. void exit()
D. void kill()

View Answer

Ans : B
Explanation: Kills the subprocess. The subprocess represented by this Process object is forcibly terminated.

1. _____ are a sequence of characters.

A. Character
B. Strings
C. Integer
D. Classes

View Answer

Ans : B
Explanation: Strings, which are widely used in Java programming, are a sequence of characters.

2. In Java programming language, strings are treated as objects.

A. TRUE
B. FALSE
C. Can be true or false
D. Can not say

View Answer

Ans : A
Explanation: True, In Java programming language, strings are treated as objects.

3. The String class is?

A. mutable
B. immutable
C. Both A and B
D. None of the above

View Answer

Ans : B
Explanation: The String class is immutable, so that once it is created a String object cannot be changed.

4. Methods used to obtain information about an object are known as?

A. string methods
B. class methods
C. object method
D. accessor methods

View Answer

Ans : D
Explanation: Methods used to obtain information about an object are known as accessor methods. One accessor method that you can use with strings is the length() method, which returns the number of characters contained in the string object.

5. Which methods to print output with formatted numbers?

A. printf()
B. format()
C. formatted()
D. Both A and B

View Answer

Ans : D
Explanation: You have printf() and format() methods to print output with formatted numbers. The String class has an equivalent class method, format(), that returns a String object rather than a PrintStream object.

6. Which method returns the character at the specified index?

A. int compareTo(Object o)
B. int compareTo(String anotherString)
C. char charAt(int index)
D. int compareToIgnoreCase(String str)

View Answer

Ans : C
Explanation: char charAt(int index) : Returns the character at the specified index.

7. Which method returns a String that represents the character sequence in the array specified?

A. int compareToIgnoreCase(String str)
B. String concat(String str)
C. boolean contentEquals(StringBuffer sb)
D. static String copyValueOf(char[] data)

View Answer

Ans : C
Explanation: boolean contentEquals(StringBuffer sb) : Returns true if and only if this String represents the same sequence of characters as the specified StringBuffer.

8. Which of the following is true about boolean equals(Object anObject)?

A. Tests if this string ends with the specified suffix
B. Compares this string to the specified object
C. Compares this String to another String, ignoring case considerations
D. None of the above

View Answer

Ans : B
Explanation: boolean equals(Object anObject) : Compares this string to the specified object.

9. Which of these method of String class is used to obtain character at specified index?

A. char()
B. Charat()
C. charat()
D. charAt()

View Answer

Ans : D
Explanation: charAt() method of String class is used to obtain character at specified index.

10. Whenever a subclass needs to refer to its immediate superclass, it can do so by use of the keyword super.

A. Yes
B. No
C. Can be yes or no
D. Can not say

View Answer

Ans : A
Explanation: Yes, Whenever a subclass needs to refer to its immediate superclass, it can do so by use of the keyword super.

1. What is the name of the method used to start a thread execution?

A. run();
B. init();
C. start();
D. resume();

View Answer

Ans : C
Explanation: The start() method causes this thread to begin execution; the Java Virtual Machine calls the run method of this thread.

2. Which cannot directly cause a thread to stop executing?

A. Calling the SetPriority() method on a Thread object.
B. Calling read() method on an InputStream object.
C. Calling notify() method on an object.
D. Calling the wait() method on an object.

View Answer

Ans : C
Explanation: notify() - wakes up a single thread that is waiting on this object's monitor.

3. Which of the following will directly stop the execution of a Thread?

A. notify()
B. notifyall()
C. wait()
D. exits synchronized code

View Answer

Ans : C
Explanation: . wait() causes the current thread to wait until another thread invokes the notify() method or the notifyAll() method for this object.

4. Which function of pre defined class Thread is used to check weather current thread being checked is still running?

A. isAlive()
B. Alive()
C. isRunning()
D. Join()

View Answer

Ans : A
Explanation: isAlive() function is defined in class Thread, it is used for implementing multithreading and to check whether the thread called upon is still running or not.

5. Which method must be defined by a class implementing the java.lang.Runnable interface?

A. public void run()
B. void run()

C. void run(int priority)
D. public void start()

View Answer

Ans : A
Explanation: In an interface all methods are abstract by default therefore they must be overridden by the implementing class. The Runnable interface only contains 1 method, the void run() method therefore it must be implemented.

6. Assume the following method is properly synchronized and called from a thread A on an object B: wait(2000); After calling this method, when will the thread A become a candidate to get another turn at the CPU?

A. After thread A is notified, or after two seconds.
B. Two seconds after thread A is notified.
C. After the lock on B is released, or after two seconds.
D. Two seconds after lock B is released.

View Answer

Ans : A
Explanation: Either of the two events (notification or wait time expiration) will make the thread become a candidate for running again.

7. Which will contain the body of the thread?

A. main();
B. stop();
C. start();
D. run();

View Answer

Ans : D
Explanation: The run() method to a thread is like the main() method to an application. Starting the thread causes the object's run method to be called in that separately executing thread.

8. Which class or interface defines the wait(), notify(),and notifyAll() methods?

A. Object
B. Class
C. Runnable
D. Thread

View Answer

Ans : A
Explanation: The Object class defines these thread-specific methods.

9. Which of these method of Thread class is used to find out the priority given to a thread?

A. ThreadPriority()
B. get()
C. getPriority()
D. getThreadPriority()

View Answer

Ans : C

Explanation: getPriority() method of Thread class is used to find out the priority given to a thread.

10. Which of these method of Thread class is used to Suspend a thread for a period of time?

A. stop()
B. sleep()
C. terminate()
D. suspend()

View Answer

Ans : B
Explanation: sleep() method of Thread class is used to Suspend a thread for a period of time.

11. Which of the following line of code is suitable to start a thread ?

```
class X implements Runnable
{
        public static void main(String args[])
        {
        /* Missing code? */
        }
        public void run() {}
}
```

A. Thread t = new Thread(X);
B. Thread t = new Thread(X); t.start();
C. X run = new X(); Thread t = new Thread(run); t.start();
D. Thread t = new Thread(); x.run();

View Answer

Ans : C
Explanation: C is suitable to start a thread.

12. What will be the output of the program?

```
class multithreaded_programing
{
        public static void main(String args[])
        {
                Thread t = Thread.currentThread();
                t.setName("New Thread");
                System.out.println(t);
        }
}
```

A. Thread[5,main].
B. Thread[New Thread,5].
C. Thread[main,5,main].
D. Thread[New Thread,5,main]

View Answer

Ans : D
Explanation: No explanation.

13. Number of threads in below java program is:

```
public class ThreadExtended extends Thread {
        public void run() {
                System.out.println("Thread is running no");
        }
        public static void main(String[] args)
        {
                ThreadExtended threadE = new ThreadExtended();
                threadE.start();
        }
}
```

A. 0
B. 1
C. 2
D. 3

View Answer

Ans : C
Explanation: Main program is also run as a thread. And, program has created one child thread. Hence, total 2 threads are there in the program.

14. which of these will create and start this thread?

```
public class MyRunnable implements Runnable
{
        public void run()
        {
                // some code here
        }
}
```

A. new Runnable(MyRunnable).start();
B. new Thread(MyRunnable).run();
C. new Thread(new MyRunnable()).start();
D. new MyRunnable().start();

View Answer

Ans : C
Explanation: The class implements Runnable, an instance of it has to be passed to the Thread constructor, and then the instance of the Thread has to be started.

15. What is the priority of the thread in output of this program?

```
class multithreaded_programing
{
        public static void main(String args[])
        {
                Thread t = Thread.currentThread();
                t.setName("New Thread");
                System.out.println(t.getName());
        }
}
```

A. main
B. Thread
C. New Thread
D. Thread[New Thread,5,main].

View Answer

Ans : C
Explanation: The getName() function is used to obtain the name of the thread, in this code the name given to thread is New Thread.

16. What will be the output of the program?

```
class MyThread extends Thread
{
        public static void main(String [] args)
        {
                MyThread t = new MyThread();
                t.start();
                System.out.print("one. ");
                t.start();
                System.out.print("two. ");
        }
        public void run()
        {
                System.out.print("Thread ");
        }
}
```

A. Compilation fails
B. An exception occurs at runtime.
C. It prints "Thread one. Thread two."
D. The output cannot be determined.

View Answer

Ans : B
Explanation: When the start() method is attempted a second time on a single Thread object, the method will throw an IllegalThreadStateException (you will not need to know this exception name for the exam). Even if the thread has finished running, it is still illegal to call start() again.

17. What is the name of the thread in output of this program?

```
class multithreaded_programing
{
        public static void main(String args[])
        {
                Thread t = Thread.currentThread();
                System.out.println(t.getPriority());
        }
}
```

A. 1
B. 4
C. 0
D. 5

View Answer

Ans : D
Explanation: The default priority given to a thread is 5.

18. What is the name of the thread in output of this program?

```
class multithreaded_programing
{
        public static void main(String args[])
        {
                Thread t = Thread.currentThread();
                System.out.println(t.isAlive());
        }
}
```

A. 1
B. 0
C. TRUE
D. FALSE

View Answer

Ans : C
Explanation: Thread t is seeded to currently program, hence when you run the program the thread becomes active & code t.isAlive returns true.

19. The following block of code creates a Thread using a Runnable target:Which of the following classes can be used to create the target, so that the preceding code compiles correctly?

```
Runnable target = new MyRunnable();
Thread myThread = new Thread(target);
```

A. public class MyRunnable extends Object{public void run(){}}
B. public class MyRunnable implements Runnable{void run(){}}
C. public class MyRunnable implements Runnable{public void run(){}}
D. public class MyRunnable extends Runnable{public void run(){}}

View Answer

Ans : C
Explanation: The class correctly implements the Runnable interface with a legal public void run() method.

20. The static method Thread.currentThread() returns a reference to the currently executing Thread object. What is the result of this code?

```
class Test
{
        public static void main(String [] args)
        {
                printAll(args);
        }
        public static void printAll(String[] lines)
        {
                for(int i = 0; i < lines.length; i++)
                {
                        System.out.println(lines[i]);
                        Thread.currentThread().sleep(1000);
                }
```

```
        }
}
```

A. Each String in the array lines will output, and there is no guarantee there will be a pause because currentThread() may not retrieve this thread.
B. Each String in the array lines will output, with no pause in between because this method is not executed in a Thread.
C. Each String in the array lines will output, with a 1-second pause.
D. This code will not compile.

View Answer

Ans : D
Explanation: The sleep() method must be enclosed in a try/catch block, or the method printAll() must declare it throws the InterruptedException.

21. What is multithreaded programming?

A. It is a process in which two different processes run simultaneously
B. It's a process in which a single process can access information from many sources
C. It is a process in which two or more parts of same process run simultaneously
D. It is a process in which many different process are able to access same information

View Answer

Ans : C
Explanation: Multithreaded programming a process in which two or more parts of the same process run simultaneously.

22. Which of these are types of multitasking?

A. Process based
B. Thread based
C. Process and Thread based
D. None of the mentioned

View Answer

Ans : C
Explanation: There are two types of multitasking: Process based multitasking and Thread based multitasking.

23. Thread priority in Java is?

A. Integer
B. Float
C. double
D. long

View Answer

Ans : A
Explanation: Java assigns to each thread a priority that determines hoe that thread should be treated with respect to others. Thread priority is integers that specify relative priority of one thread to another.

24. What will happen if two thread of the same priority are called to be processed simultaneously?

A. Anyone will be executed first lexographically
B. Both of them will be executed simultaneously

C. None of them will be executed
D. It is dependent on the operating system

View Answer

Ans : D
Explanation: In cases where two or more thread with same priority are competing for CPU cycles, different operating system handle this situation differently. Some execute them in time sliced manner some depending on the thread they call.

25. Which of these statements is incorrect?

A. By multithreading CPU idle time is minimized, and we can take maximum use of it
B. By multitasking CPU idle time is minimized, and we can take maximum use of it
C. Two thread in Java can have the same priority
D. A thread can exist only in two states, running and blocked

View Answer

Ans : D
Explanation: Thread exist in several states, a thread can be running, suspended, blocked, terminated & ready to run.

26. What requires less resources?

A. Thread
B. Process
C. Thread and Process
D. Neither Thread nor Process

View Answer

Ans : A
Explanation: Thread is a lightweight and requires less resources to create and exist in the process. Thread shares the process resources.

27. What does not prevent JVM from terminating?

A. Process
B. Daemon Thread
C. User Thread
D. JVM Thread

View Answer

Ans : B
Explanation: Daemon thread runs in the background and does not prevent JVM from terminating. Child of daemon thread is also daemon thread.

28. What decides thread priority?

A. Process
B. Process scheduler
C. Thread
D. Thread scheduler

View Answer

Ans : D
Explanation: Thread scheduler decides the priority of the thread execution. This cannot guarantee that higher priority thread will be executed first, it depends on thread scheduler implementation that is OS dependent.

29. What is true about time slicing?

A. Time slicing is OS service that allocates CPU time to available runnable thread
B. Time slicing is the process to divide the available CPU time to available runnable thread
C. Time slicing depends on its implementation in OS
D. Time slicing allocates more resources to thread

View Answer

Ans : B
Explanation: Time slicing is the process to divide the available CPU time to available runnable thread.

30. Deadlock is a situation when thread is waiting for other thread to release acquired object.

A. TRUE
B. FALSE
C. Can be true or false
D. can not say

View Answer

Ans : A
Explanation: Deadlock is java programming situation where one thread waits for an object lock that is acquired by other thread and vice-versa.

1. Java array is a collection of _____.

A. similar type of elements
B. different type of element
C. heterogeneous data
D. Both A and C

View Answer

Ans : A
Explanation: An array is a collection of similar type of elements which has contiguous memory location.

2. Array data access using ____.

A. Operator
B. Variable
C. index
D. Pointer

View Answer

Ans : C
Explanation: Array data access using index.

3. At time of array initialization which is necessary to specify?

A. Row
B. Column
C. Row and Column
D. None of the above

View Answer

Ans : A
Explanation: Row is necessary to specify at time of array initialization.

4. Java Array can allocate _____.

A. Dynamic Memory
B. Static Memory
C. Both A and B
D. None of the above

View Answer

Ans : B
Explanation: Arrays in java are static lists that can store a certain kind of variables. Therefore these arrays need to be initialized at the compile time.

5. Which of the following is an incorrect array declaration?

A. int [] arr = new int[5].
B. int arr[] = new int[5].
C. int arr[] = new int[5].
D. int arr[] = int [5] new

View Answer

Ans : D
Explanation: int arr[] = int [5] is an incorrect array declaration because Operator new must be succeeded by array type and array size.

6. Index in array start with _____.

A. -1
B. 0
C. 1
D. infinite

View Answer

Ans : B
Explanation: Index in array start with 0.

7. Which of the following is used to declare,construct, and initlaize an array?

A. int arr [] [] = {1, 2, 3, 4};
B. int [] arr = (1, 2, 3);
C. int [] arr = {};
D. int arr [] = {1, 2, 3};

View Answer

Ans : D
Explanation: int arr [] = {1, 2, 3}; is used to declare,construct, and initlaize an array becuase Option A is wrong because it initializes an int array with String literals. Option B is wrong because it uses something other than curly braces for the initialization. Option C is wrong because it provides initial values for only one dimension, although the declared array is a two-dimensional array.

8. We can calculate the length of an array using _____.

A. sizeof(array)
B. array.len
C. array.length
D. array.sizeof()

View Answer

Ans : C
Explanation: We can calculate the length of an array using array.length.

9. Which of the following is advantage of java array?

A. Code Optimization
B. Random access
C. Size No-Limit
D. Both A and B

View Answer

Ans : A
Explanation: Code Optimization and Random access the following is advantage of java array.

10. In java, array elements are stored in _____ memory locations.

A. Random
B. Sequential
C. Sequential & Random
D. Binary search

View Answer

Ans : B
Explanation: Array elements are stored in contiguous memory. Linked List is stored in random memory locations.

11. What will be the output of the program?

```
class Main
{
public static void main(String args[]) {
                int arr[] = {10, 20, 30, 40, 50};
                for(int i=0; i < arr.length; i++)
                {
                        System.out.print(" " + arr[i]);
                }
        }
}
```

A. 10 20 30 40 50
B. Compiler Error
C. 10 20 30 40
D. None of the above

View Answer

Ans : A
Explanation: It is a simple program where an array is first created then traversed. The important thing to note is, unlike C++, arrays are first class objects in Java. For example, in the following program, size of array is accessed using length which is a member of arr[] object.

12. What will be the output of the program?

```
int arr[] = new int [5];
System.out.print(arr);
```

A. 0
B. value stored in arr[0].
C. 0
D. Class name@ hashcode in hexadecimal form

View Answer

Ans : D
Explanation: If we trying to print any reference variable internally, toString() will be called which is implemented to return the String

13. What will be the output of the program?

```
class Main
{
public static void main(String args[])
        {
                int array_variable [] = new int[10];
                for (int i = 0; i < 10; ++i)
                {
                        array_variable[i] = i;
                        System.out.print(array_variable[i] + " ");
                        i++;
                }
        }
}
```

A. 0 2 4 6 8
B. 1 3 5 7 9
C. 0 1 2 3 4 5 6 7 8 9
D. 1 2 3 4 5 6 7 8 9 10

View Answer

Ans : A
Explanation: When an array is declared using new operator then all of its elements are initialized to 0 automatically. for loop body is executed 5 times as whenever controls comes in the loop i value is incremented twice, first by i++ in body of loop then by ++i in increment condition of for loop.

14. What will be output for the following code?

```
class Main
{
public static void main(String args[])
        {
                int arr[] = new int[] {0 , 1, 2, 3, 4, 5, 6, 7, 8, 9};
                int n = 6;
                n = arr[arr[n] / 2];
                System.out.print(n);
        }
}
```

A. 3
B. 0
C. 6
D. 1

View Answer

Ans : A
Explanation: Array arr contains 10 elements. n contains 6 thus in next line n is given value 2 printing arr[arr[6]/2] i:e arr[3] = 3.

15. Predict the output of following Java Program?

```
class Main
{
 public static void main(String args[])
        {
                char array_variable [] = new char[10];
                for (int i = 0; i < 10; ++i)
                {
                        array_variable[i] = 'i';
                        System.out.print(array_variable[i] + " ");
                }
        }
}
```

A. 1 2 3 4 5 6 7 8 9 10
B. 0 1 2 3 4 5 6 7 8 9 10
C. i j k l m n o p q r
D. i i i i i i i i i i

View Answer

Ans : D
Explanation: No explantion.

16. What will be output for the following code?

```
class Test {
        public static void main(String args[]) {
                int arr[2];
                System.out.println(arr[0]);
                System.out.println(arr[1]);
        }
}
```

A. 0 0
B. garbage value garbage value
C. Compiler Error
D. Exception

View Answer

Ans : C
Explanation: In Java, it is not allowed to put the size of the array in the declaration because an array declaration specifies only the element type and the variable name. The size is specified when you allocate space for the array. .

17. What will be output for the following code?

```
class Test {
        public static void main(String args[]) {
                int arr[] = new int[2];
                System.out.println(arr[0]);
                System.out.println(arr[1]);
        }
}
```

A. 0 0
B. garbage value garbage value
C. Compiler Error
D. Exception

View Answer

Ans : A
Explanation: Java arrays are first class objects and all members of objects are initialized with default values like o, null.

18. What will be output for the following code?

```
class array_output
{
        public static void main(String args[])
        {
                int array_variable[][] = {{ 1, 2, 3}, { 4 , 5, 6}, { 7, 8, 9}};
                int sum = 0;
                for (int i = 0; i < 3; ++i)
                for (int j = 0; j < 3 ; ++j)
                        sum = sum + array_variable[i][j];
                System.out.print(sum / 5);
        }
}
```

A. 8
B. 9
C. 10
D. 11

View Answer

Ans : B
Explanation: No explanation.

19. What will be the output of the program?

```
class Main
{
 public static void main (String[] args)
        {
                int arr1[] = {1, 2, 3};
                int arr2[] = {1, 2, 3};
                if (arr1 == arr2)
                        System.out.println("Same");
                else
                        System.out.println("Not same");
        }
}
```

A. Same
B. Not Same
C. Compiler error
D. None of the above

View Answer

Ans : B
Explanation: No explanation.

20. What is the output of this program?

```
class Main
{
public static void main (String[] args)
        {
                int arr1[] = {1, 2, 3};
                int arr2[] = {1, 2, 3};
                if (arr1.equals(arr2))
                        System.out.println("Same");
                else
                        System.out.println("Not same");
        }
}
```

A. Same
B. Not Same
C. Compiler error
D. None of the above

View Answer

Ans : B
Explanation: arr1.equals(arr2) is same as (arr1 == arr2)

21. Which of these is an incorrect Statement?

A. It is necessary to use new operator to initialize an array
B. Array can be initialized using comma separated expressions surrounded by curly braces
C. Array can be initialized when they are declared
D. None of the mentioned

View Answer

Ans : A
Explanation: Array can be initialized using both new and comma separated expressions surrounded by curly braces example : int arr[5] = new int[5]; and int arr[] = { 0, 1, 2, 3, 4};

22. What is the type of variable "b" and "d" in the below snippet?

```
int a[], b;
int []c, d;
```

A. "b" and "d" are int
B. "b" and "d" are arrays of type int
C. "d" is int variable; and "b" is int array
D. "b" is int variable; and "d" is int array

View Answer

Ans : D
Explanation: If [] is declared after variable it is applicable only to one variable. If [] is declared before variable it is applicable to all the variables.

23. Which of these is necessary to What is the output of below snippet?specify at time of array initialization?

```
Object[] names = new String[3];
```

```
names[0] = new Integer(0);
```

A. ArrayIndexOutOfBoundsException
B. ArrayStoreException
C. Compilation Error
D. Code runs successfully

View Answer

Ans : B
Explanation: ArrayIndexOutOfBoundsException comes when code tries to access an invalid index for a given array. ArrayStoreException comes when you have stored an element of type other than the type of array..

24. How to sort an array?

A. Array.sort()
B. Arrays.sort()
C. Collection.sort()
D. System.sort()

View Answer

Ans : B
Explanation: Arrays class contains various methods for manipulating arrays (such as sorting and searching). Array is not a valid class.

25. How to copy contents of array?

A. System.arrayCopy()
B. Array.copy()
C. Arrays.copy()
D. Collection.copy()

View Answer

Ans : A
Explanation: Arrays class contains various methods for manipulating arrays (such as sorting and searching). Array is not a valid class.

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