

**MCQS**

**1) Which of the following option leads to the portability and security of Java?**

a. Bytecode is executed by JVM

b. The applet makes the Java code secure and portable

c. Use of exception handling

d. Dynamic binding between objects

**2)** **What will be the output of the following program?**

**public class MyFirst {**

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

**MyFirst obj = new MyFirst(n);**

**}**

**static int a = 10;**

**static int n;**

**int b = 5;**

**int c;**

**public MyFirst(int m) {**

**System.out.println(a + ", " + b + ", " + c + ", " + n + ", " + m);**

**}**

**// Instance Block**

**{**

**b = 30;**

**n = 20;**

**}**

**// Static Block**

**static**

**{**

**a = 60;**

**}**

**}**

a)10, 5, 0, 20, 0

b)10, 30, 20

c)60, 5, 0, 20

d)60, 30, 0, 20, 0

**3)** **Which of the following is a valid declaration of a char?**

1. char ch = '\utea';
2. char ca = 'tea';
3. char cr = \u0223;
4. char cc = '\itea';

**4)** **What is the return type of the hashCode() method in the Object class?**

1. Object
2. int
3. long
4. void

**5)** **Which of the following for loop declaration is not valid?**

1. for ( int i = 99; i >= 0; i / 9 )
2. for ( int i = 7; i <= 77; i += 7 )
3. for ( int i = 20; i >= 2; - -i )
4. for ( int i = 2; i <= 20; i = 2\* i )

**6)** **In which process, a local variable has the same name as one of the instance variables?**

1. Serialization
2. Variable Shadowing
3. Abstraction
4. Multi-threading

**7)** **What do you mean by nameless objects?**

1. An object created by using the new keyword.
2. An object of a superclass created in the subclass.
3. An object without having any name but having a reference.
4. An object that has no reference.

**8)** **An interface with no fields or methods is known as a \_\_\_\_\_\_.**

1. Runnable Interface
2. Marker Interface
3. Abstract Interface
4. CharSequence Interface

**9)** **Which option is false about the *final* keyword?**

1. A *final* method cannot be overridden in its subclasses.
2. A *final* class cannot be extended.
3. A *final* class cannot extend other classes.
4. A *final* method can be inherited.

**10)** **In which memory a String is stored, when we create a string using new operator?**

1. Stack
2. String memory
3. Heap memory
4. Random storage space

**11)** **What is the use of the intern() method?**

1. It returns the existing string from memory
2. It creates a new string in the database
3. It modifies the existing string in the database
4. None of the above

**12)** **Which of the following is a reserved keyword in Java?**

1. object
2. strictfp
3. main
4. system

**13) Which keyword is used for accessing the features of a package?**

1. package
2. import
3. extends
4. export

**14)  In java, jar stands for\_\_\_\_\_.**

1. Java Archive Runner
2. Java Application Resource
3. Java Application Runner
4. None of the above

**15) Which of the given methods are of Object class?**

1. notify(), wait( long msecs ), and synchronized()
2. wait( long msecs ), interrupt(), and notifyAll()
3. notify(), notifyAll(), and wait()
4. sleep( long msecs ), wait(), and notify()

**16) Which of the following is a valid syntax to synchronize the HashMap?**

1. Map m = hashMap.synchronizeMap();
2. HashMap map =hashMap.synchronizeMap();
3. Map m1 = Collections.synchronizedMap(hashMap);
4. Map m2 = Collection.synchronizeMap(hashMap);

**17)  Which of the following is a mutable class in java?**

1. java.lang.String
2. java.lang.Byte
3. java.lang.Short
4. java.lang.StringBuilder

**18) What is meant by the classes and objects that dependents on each other?**

1. Tight Coupling
2. Cohesion
3. Loose Coupling
4. None of the above

**19) What is the result of the following program?**

**public** **static** **synchronized** **void** main(String[] args) **throws**

InterruptedException {

     Thread f = **new** Thread();

      f.start();

      System.out.print("A");

      f.wait(1000);

      System.out.print("B");

}

1. It prints A and B with a 1000 seconds delay between them
2. It only prints A and exits
3. It only prints B and exits
4. A will be printed, and then an exception is thrown.

**20) What is the purpose of the PATH environment variable in Java?**

A.To locate Java libraries

B.To store Java bytecode

C. To Locate the exe files (.exe)

D.To optimize Java code

**PROGRAMS**

**1. Write a java program to display the strings which are palindrome?**

input: racar is madam for dad

output: racar madam dad

**2. Write a java program to display given string in below format?**

input: ABBCCCDDDD

output: A1B2C3D4

**3.Write a program for each prevention of a thread methods(yield(),join(),sleep()) ?**

**4.What are java 8 features? Mention all the features , explain about functional interface , lambda expression ?**

**5.Write a java program to display the Fibonacci series of a given number?**

**Input 5**

**Output 0 1 1 2 3 5 8**

**6. Write a java program to print the below output ?**

**Input:- int arr = {1,4,3,2,5};**

**Output:- 0,5,2,3,4**

**Hint:**

**Decrement the value based on odd index , increment the value based on even index**

**7. Write a java program to implement the concept of encapsulation with definition?**

**8.Write a java program to print the below pattern?**

**\* \* \* \* \***

**\* \* \* \***

**\* \* \***

**\* \***

**\***

**9.Write a java program to find the number is perfect number or not ?**

Input :- 6

Output :- Yes it is perfect number

**10.Write a java program to find the count of Armstrong numbers present in the array?**

**Input:- arr[]={152,343,153};**

**Output:- 1**

**11.** **Write a java program to perform sum of two numbers without using arithmetic operator ?**

**12.Write a java program to print the multiples of 2 or 5 from the given array elements?  
input :- arr[] = {2,4,19,21,32,45};**

**Output:- 2,4,32,45**

**13.Write a java program to find the given number is palindrome or not by using recursion?  
14.** **Write a java program to number of uppercase letters, lowercase letters,**

**digits , words and spaces?**

**input: This Is Java Class 29**

**output: uppercase: 4**

**lowercase : 11**

**digits : 2**

**words : 5**

**spaces : 4**

**15.Write a java program to find the sum of even index array element in a given array?**

**Input :- arr[]={2,8,6,9,0,7,6};**

**Output:- sum of even index elements = 12 .**