**TCS Test**

1. Find the output of the following program.

public class Solution {

public static void main(String args[]) {

byte x = 127;

x++;

x++;

System.out.println(x);

}

}

* 1. 127
  2. **-127**
  3. 129
  4. 2

1. What is the output of the following code?

public static void main(String[] args) {

int i=1;

while(i<=5) {

System.*out*.print(i+" ");

i++;

}

}

* 1. 1 2 3 4
  2. 5 4 3 2 1
  3. **1 2 3 4 5**
  4. 1 2 3 4

1. Identify the output of the following program.

String str = “abcde”

System.out.println(str.subString(1,3));

* 1. abc
  2. **bc**
  3. bcd
  4. cd

1. Find the output of the following code.

public static void main(String[] args) {

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

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

System.out.print(x[i]+" ");

}

* 1. **120 200 14**
  2. 120 200 16
  3. 120 200 016
  4. Compilation error

1. What is the output of the below program

public class Methods{

int info() {

System.out.println(“PLANE”);

}

void info() {

System.out.println(“AIRPORT”);

}

public static void main(String args[]) {

Methods ms = new Methods();

Int a = ms.info();

}

}

* 1. PLANE
  2. AIRPORT
  3. **Compiler error**
  4. Runtime error

1. What will be result of the following code execution?

public class ListExample {

public static void main(String[] args) {

ArrayList<String> items = new ArrayList<>();

items.add("aaa");

items.add("vvv");

items.addFirst("bbb");

items.addLast("ccc");

System.*out*.println(items);

}

}

* 1. [bbb,aaa,vvv,ccc]
  2. [aaa,vvv,bbb,ccc]
  3. **Compiletime error**
  4. [aaa, vvv]

1. What is the main advantage of using generics in Java?
   1. Reduced memory usage
   2. Faster execution of code
   3. **Enhanced type safety and code readability**
   4. Compatibility with older java versions
2. Which of the following used in the servlet to extract the parameter value
   1. **request.getParameter()**
   2. request.setParameter()
   3. response.getParameter()
   4. response.getAttribute()
3. Which HTTP request method is used to create a new source?
   1. GET
   2. **POST**
   3. PUT
   4. DELETE
4. Which of the following annotations is used to indicate an entity's primary key field?
   1. @Pk
   2. @Primary
   3. @Key
   4. **@Id**
5. Which of the following annotations is used to specify the name of the table associated with an entity in JPA/Hibernate?
   1. @TableName
   2. **@Table**
   3. @Entity
   4. @EntityTable
6. Which of the following annotations is NOT used to specify that a class is a Spring bean?
   1. @Service
   2. **@Qualifier**
   3. @Controller
   4. @Component
7. What is the purpose of @Qualifier annotation in spring?
   1. It specifies the order of bean initialization among multiple beans
   2. It marks a bean for automatic injection
   3. It marks a class to become a spring bean
   4. **It resolves ambiguity when multiple beans of same type are present.**
8. In Spring Dependency Injection is achieved by using\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   * + 1. Setter injection
       2. Constructor injection
       3. Module injection
       4. Bundle injection
9. **1,2**
10. 1,3
11. 2,3
12. 2,4
13. How to retrieve a bean from Spring Application context?
    1. **Using ApplicationContext.getBean()**
    2. Using annotation @Bean
    3. Using @Autowired annotation
    4. None of the above
14. Which annotation is used to define a method as an exception handling method in Spring MVC?
    1. @HandleExcpetion
    2. @CatchException
    3. **@ExceptionHandler**
    4. @TryCatch
15. What is Spring Initializer?
    1. **Web based tool to bootstrap spring projects and project skeletons with necessary configuration and dependencies**
    2. A command-line tool for generating a basic Spring boot application
    3. A tool to launch spring application
    4. A tool to create a spring boot application with specified set of features
16. Which annotation do we use to mark the class as a Service component?
    1. @Component
    2. @RestService
    3. **@Service**
    4. @Repository
17. Which starter dependency is used to develop Restful webservices?
    1. spring-boot-starter-jpa
    2. **spring-boot-starter-web**
    3. spring-boot-starter-rest
    4. spring-boot-starter-web-mvc.
18. When would developers use microservices?
    1. When they want to write mobile applications to run quickly
    2. When working with nano technology
    3. **When they need to create large, enterprise-applications that are subject to change on a frequent basis.**
    4. To create UI applications
19. What are the different ways to make REST API calls in microservices?
    1. Using RestTemplate
    2. Using WebClient
    3. Using Spring Cloud OpenFeign
    4. **All of the above**
20. How can Service Registry and Discovery can implement in microservices application?
    1. Using Hystrix
    2. Using Tomcat
    3. **Using Eureka**
    4. Using Docker
21. What is Apache Kafka primarily used for?
    1. Image processing
    2. **Real-time streaming and processing**
    3. Databases
    4. Machine learning
22. Which command initializes the GIT repository?
    1. git new
    2. **git init**
    3. git create
    4. git start
23. what is the purpose of JSX usage in React?
    1. To improve the performance of Virtual DOM
    2. To maintain the Redux store
    3. **To write HTML elements effectively in Javascript**
    4. To export a function component
24. Which is used to add state to functional components in React?
    1. **useState**
    2. useContext
    3. useEffect
    4. useReducer
25. What is meant by event?
    1. **An action that triggers on selecting a button**
    2. Executing a page
    3. Store a component in redux
    4. Returning a component
26. Which component is used for React Router?
    1. <Router>
    2. **<Route>**
    3. <Switch?
    4. <Link>
27. What is the use of axios in React?
    1. **To send asynchronous request to REST endpoints**
    2. To define x – y coordinates in UI design
    3. To create function component
    4. To process arrays in React
28. What is the use of key property in React?
    1. To define styling
    2. **To identify element in a component array?**
    3. To define a routing element
    4. All of the above