

## Packages & Collections & I/O: OOP Through JAVA

- ① Define a package. Write the advantages of packages?
- ② What is classpath?
- ③ Explain creation, importing of a package with an example.
- ④ Explain about Object class. with atleast- 5 methods.
- ⑤ What is an "ArrayList"? How it is different from a vector?
- ⑥ Define Vector class & Explain about its methods with example.
- ⑦ ArrayList Methods with a sample Program.
- ⑧ HashMap and its Methods with an example Program.
- ⑨ What is the difference b/w StringTokenizer & Scanner class?
- ⑩ WAP to find the sum of an array of integers using StringTokenizer.
- ⑪ What is file class & Explain its methods using a Program.
- ⑫ Define an I/O stream. What are the Differences b/w Character Stream & Byte Stream?
- ⑬ WAP to Merge the contents of two files using character stream.
- ⑭ WAP to Copy the contents of one file to another using byte stream (character stream) classes.
- ⑮ WAP to Count the no. of characters, words, spaces & lines in a given I/P file.
- ⑯ Define Serialization. What is the use of BufferedReader in Java?

## Exception Handling & Multithreading :-

- ⑰ Explain Exception Handling Mechanism in Java with a suitable example.
- ⑱ Nested Try Blocks with an example.
- ⑲ Checked & unchecked Exceptions.
- ⑳ Differences b/w ~~Try~~ throw & throws clauses?
- ㉑ WAP to create a user Defined Exception.



- (22) Define a Thread. What is the difference b/w Process based multitasking and Thread based multitasking.
- (23) Explain creation & running of threads using  
 a) using Thread class  
 b) Implementing Runnable Interface.
- (24) Explain Thread life cycle Methods.
- (25) How to set thread Priority? What is a Daemon Thread?
- (26) What is Thread Synchronization? Explain with a Program.
- (27) What is the use of Inter Thread Communication over Synchronization?
- (28) Explain Inter Thread Communication with the Producer-Consumer Program.
- (29) Explain a) sleep() b) isAlive() c) join().
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## Swings

- (30) Differences b/w AWT Applet & Swings.
- (31) WAP to create sample frame using Swings.
- (32) Layout Managers Advantages. Explain a) BorderLayout  
 b) Grid Layout
- (33) How to Draw text on Swing Applet?
- (34) What is an Adapter classes? what is the use?
- (35) WAP to Implement Mouse Event using Adapter classes
- (36) " " " Key Events " "
- (37) Explain Delegation Event Model in Swings.
- (38) Create a simple swing application using JLabel and JTextField.
- (39) Distinguish Socket and ServerSocket along with its methods.
- (40) Write a Client Server program that client sends a number, then the server should return the factorial of that number which is received from the client.

41) What is InetAddress? Explain InetAddress class methods with a sample program.