Object Oriented Programming (with JAVA) UNIT-3 Question Bank
by Dr. Partha Roy, Professor, BIT, Durg

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1. Explain with proper code the member 8 methods of String class.
2. Compare the use of == and equals() method while comparing string objects.
3. Explain with proper code the concept of String Constant Pool.
4. Explain the difference between String s1= “HELLO”; and String s2=new String(“HELLO”);
5. Explain with proper code the use of toString() method of Object class inherited in all the classes in Java.
6. Explain with proper code the uses of Wrapper classes.
7. Discuss with proper code the member methods of Wrapper classes.
8. Explain with proper code the concept of Multithreading.
9. Compare between calling start() and run() directly with a thread object.
10. Explain with proper code the use of extends Thread and implements Runnable.
11. Explain with diagram the lifecycle of a Thread.
12. Explain with proper code the use of sleep(), yield() and join() with threads.
13. Explain with proper code the concept of thread starvation and deadlock.
14. Explain with proper code the effect of calling interrupt() on a thread that is sleeping.
15. Explain the concept of synchronization between threads with proper code.
16. Explain with proper code the concept of Object level lock and Class level lock w.r.t threads.
17. Explain with proper code the concept of using wait() and notify() w.r.t threads.
18. Explain the concept of Input Stream and Output Stream.
19. Explain with proper code the application of java.io.File.
20. Explain with proper code the application of FileInputStream and FileOutputStream of java.io package.
21. Explain with proper code the application of FileReader and FileWriter of java.io package.
22. Explain with proper code the application of ObjectInputStream and ObjectOutputStream of java.io package.
23. Explain with proper code the concept of Serialization and Deserialization w.r.t java.io package.
24. Explain with proper code the application of InputStreamReader and OutputStreamWriter of java.io package.
25. Explain with proper code the application of BufferedReader and BufferedWriter of java.io package.
26. WAP to input a string and find out whether it is a palindrome of not.
27. WAP to input full name of a person and print the first name and last name separately in the output.
28. WAP to input a text and convert the first letter of each word in the text into upper case.
29. WAP to read a string “MULTI THREADING IN JAVA” from two threads randomly, and rewrite the same program to read the same string sequentially by two threads.
30. WAP to implement a multithreading environment where all the threads wait for any one of the thread (select any one) to end and then only all the other threads end.
31. WAP to implement a bank account on which multiple threads can deposit money and withdraw any amount, but the main balance should not go below 1000.
32. WAP to implement a message box where a reader thread can read the message but only when it is sure that the writer thread has written the message.
33. WAP to implement producer consumer problem using multithreading.
34. WAP to implement a critical section (monitor/semaphore) in a multithreading environment.
35. WAP to input a string and print the number of alphabets, numbers and special symbols present in that string.
36. WAP to count the number of Characters, Words, Special symbols and Numeric values in a text file.
37. WAP to convert all the letters in a text file into upper case.

38. WAP to develop a File Copier.
39. WAP to develop a File Splitter/Joiner application.
40. WAP to develop a File Encryptor/Descriptor application.
41. Write a program to read contents of C:\test\File1.txt and C:\test\File2.txt and concatenate the contents of both the files and store in the file C:\test\File3.txt. Display the contents of File3.txt.
42. WAP to develop a Login validator Application, store the database of all users and their passwords in a vector and save it in a disk file named "Users.txt". The existing users should be able to login by entering correct username and password. Also the existing users can change their passwords.
43. WAP to build a Phone Book application, store the database in a vector and save it in a disk file named "Pbook.txt". The data base should contain the Customer Name, Phone number and Address. Give the facility to perform add, delete, search and edit procedures on the database.
44. Write a program to build an Employee Information System, store the database in a vector and save it in a disk file named "Emp.txt". The data base should contain the Employee Number, Employee Name and Department. Give the facility to perform add, delete, search and edit procedures on the database.