

**Inter Institutional Computer Centre**  
**An Autonomous Department of**  
**Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur**

**Subject:- Practical-I Java Programming**

- 1) Write a Java program to find the volume of box.
- 2) Write a Java program to find the volume of two boxes.
- 3) Write a Java program to find the area of rectangle.
- 4) Write a Java program to find the area of circle.
- 5) Write a Java program to assign the object reference variable.
- 6) Write a Java program to assign the one object to another object.
- 7) Write a Java program to create classes Rectangle and Box and find out their names by using methods.
- 8) Write a Java program to find the volume of box using method.(create method volume())
- 9) Write a program in Java find the volume of box using constructor.
- 10) Write a program in Java to demonstrate namespace collision.
- 11) Write a program in Java to demonstrate **this** keyword.
- 12) Write a program in Java to demonstrate **finalize()** method.
- 13) Write a program in Java to compute volume of box and cube by using constructor overloading.
- 14) Write a program in Java to demonstrate concept of reference to object.
- 15) Write a program in Java to create a **main** thread.
- 16) Write a program in Java to create a thread by extending a class.
- 17) Write a program in Java to create the two child thread by extending a thread class.
- 18) Write a program in Java to create the thread by using runnable interface.
- 19) Write a program in Java to create child thread by implementing runnable interface.
- 20) Write a program in Java to demonstrate **isAlive()** and **join()** method of a thread.
- 21) Write a program in Java to overload method **volume()** to find volume of sphere and volume of rectangle.
- 22) Write a program in Java to demonstrate the concept of single inheritance.
- 23) Write a program in Java to demonstrate the concept of multilevel inheritance.
- 24) Write a program in Java to demonstrate the concept of method overriding.
- 25) Write a program in Java to demonstrate the use of **super** keyword.
- 26) Write a program in Java to print and solve the following series using **for** loop  
$$S = 1/1! + 1/2! + 1/3! + \dots + 1/n!$$
- 27) Write a program in Java to print and solve the following series using **while** loop  
$$S = 1 + 1/0.1 + 1/0.01 + \dots + \text{nth term}$$

- 28) Write a program in Java to print the multiplication table of 5 using for loop
- 29) Write a program in Java to print two matrices and their multiplication by using the concept of 2-D array. ( use matrix of size 3X3)
- 30) Write a program in Java to display and print the sum of following series  
 $S = 1 - 1 + 1 - 1 + 1 - 1 + \dots$
- 31) Write a program in Java to display and print the sum of following series  
 $S = x - \frac{x^2}{3} + \frac{x^3}{5} - \frac{x^4}{7} + \dots$  to n terms
- 32) Write a program in Java to display and print the sum of following series  
 $S = a + \frac{a^2}{2} + \frac{a^3}{3} + \dots + \frac{a^{10}}{10}$
- 33) Write a program in Java to display and print the sum of following series  
 $S = 1 + 2 + 4 + 7 + 11 + \dots + \text{nth term}$
- 34) Write a program in Java to display and print the sum of following series  
 $S = 1 + \frac{(x+2)}{2!} + \frac{(2x+3)}{3!} + \frac{(3x+4)}{4!} + \dots + \text{nth term}$