

**Deccan Education Society's**  
**Fergusson College (Autonomous), Pune**  
**Department of Mathematics**  
**M.Sc. (IMCA) (2024-2025)**  
**Second Year – Semester III**  
**MTS-621 Practical Lab VI (Core Java)**  
**Java Assignment -1**  
**Fundamentals and Arrays**

***Write a java program for the following:***

**PART A:**

1. Swap two numbers without using third variable
2. Write a program to check whether the student is passed or failed?  
In case passed generate grade as A, B, C, D or F.  
Accept the following inputs:
  1. Passing percentage required.
  2. Obtained marks
  3. Accept the percentage ranges for A, B, C, D or F.
3. Generate the factorial of a number for all the numbers for the given range of numbers. (Accept the range from the user).
4. Demonstrate the use of break and continue in the while loop.
5. Accept the alphabet from user and generate the multiplication table for number corresponding to alphabet. If following the mapping for alphabets:  
A→1, B→2, C→3.....Z→26.
6. Create a class for Bank\_Customer with appropriate details as a it is data members.  
Write a program to update its savings, current account balance as per the transactions done by the customers. (use array of objects)
7. Create a class for hospitals wards to maintain the number of beds available under various wards (wards corresponding to different diseases).

**PART B:**

***Explore:***

1. Generate new mobile number by accepting two different mobile numbers. (Use BigInteger)