

***PSG College of Technology***  
***Department of Applied Mathematics and Computational Sciences***  
***MSc Theoretical Computer Science – VI Semester***  
***15XT68 -Security in Computing Lab***  
***Problem Sheet 6***

Create a user authentication mechanism to include the following additional features, along with the username /password method.

- a) Add salt to the password( assume the password is hashed and stored in the database)
- b) The authentication procedure should invalidate the user after three wrong entries. Disable the user for further access.
- c) Any idle session for a period of 30 minutes shall be detected and enable automatic logout
- d) To have additional security,
  - 1. Implement challenge – response scheme
  - 2. Introduce CAPTCHA