1. What are the characteristics of a good estimator?
2. Mention the unbiased estimator of mean and variance.
3. What is the minimum variance unbiased estimator?
4. A random sample (X_1, X_2, X_3, X_4, X_5) of size 5 is drawn from a normal population with unknown mean μ. Consider the following estimates of μ.
   a. $t_1 = \frac{X_1, + X_2 + X_3 + X_4 + X_5}{5}$
   b. $t_2 = \frac{X_1 + X_2}{2} + X_3$
   c. $t_3 = \frac{2X_1 + X_2 + \lambda X_3}{3}$

   Where λ is such that t_3 is an unbiased estimator of μ.

   Find λ. Are t_1 and t_2 unbiased? State giving reasons, the estimator which is best among t_1, t_2 and t_3.