

Roll:

Section:

Q.1). Generally, customers are requested to give recommendations and reviews after buying products from an e-commerce site. **Shopee Ltd.** is a Singaporean e-commerce site that focuses on improving customers' satisfaction based on their reviews. Customers are highly motivated to order a product if they find a good review of this product. However, there is a high risk of fake reviews that may mislead customers. Several reviews for two different shampoos are attached here. **Conclude** a decision or an estimation from the dataset below. **6**

S-X	5	8	9	3	10	4	8	10	9
S-Y	3	7	4	8	3	10	2	10	8

Q.2). **Derive** the formula for estimating errors in the linear regression process to calculate the slope and intercept of a linear line considering the sum of square errors (**SSE**). **4**

Q.3) Consider the attached **Life Expectancy** dataset created by World Health Organization. **Target = Life Expectancy** **10**

Adult Mortality	250.0	274.0	270.3	233.0	253.6	260.0	274.0	233.0
Infants Death	157.5	145.8	150.5	135.6	125.6	130.0	135.0	120.0
Alcohol	.002	.003	.002	.001	.005	.003	.004	.001
Hepatitis-B	65.0	65.0	52.0	36.9	61.3	65.0	80.0	55.0
Life Expectancy	71.0	59.0	63.0	82.6	57.0	65.0	58.0	93.0

Consider any of the **two (02)** features to build a linear/non-linear model. Finally, you are asked to find out the **Life Expectancy** with Infants Death=165.0 and Alcohol=.00345.