### Final Semester Examination, 2016

#### **School of Social Sciences**

## Msc. Economics Integrated (Third Semester)

Course Code: SSEI-215 Statistical Methods (Practical) III

Time Allowed: 1 Hour

Maximum Marks: 15

Note: Attempt as per instructions

All the best@

(Set B)

#### Attempt any one question

- 1. With the following data calculate the value of
  - a) Mean
  - b) Standard Deviation
  - c) Range
  - d) Quartile Deviation
  - e) \(\beta 1 & \beta 2
  - f) Correlation between X and Y. Interpret the values

ſ	X	3	4	5	8	7	9	6	2	1
ŀ	Υ .	5	3	4	7 .	8	7	6	9	2

2. Ten students were given intensive coaching for a month in statistics. The scores were obtained in test 1 and test 5. Does the score from test 1 to test 5 shows an improvement? Test at 5% level of significance. Also mention the p value. Test the hypothesis and interpret whether you will accept or reject HO?

3.

S. No.	1	2	3	4	5	6	7	8	9	10
Marks in 1 <sup>st</sup> test	50	52	53	60	65	67	48	69	72	80
Marks in 5 <sup>th</sup> Test	65	55	65	65	60	67	49	82	74	86

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(Set A)

Attempt any one question

1. A group of 5 patients is treated with medicine A weight 42, 39, 48, 60 and 41 kg. A group of another 7 people from the same hospital with medicine B weight 38, 42, 56, 64, 68, 69 and 62 kg. Do you agree with the claim that the medicine B increases the weight significantly? Construct a null hypothesis and test at 5 L.O.S. Interpret the values of the test and mention whether you will accept or reject the null hypothesis and why?

OR

2. A salesman is expected to effect an average sales of Rs. 3500. A sample test revealed that a particular salesman had made the following sales Rs.3700, Rs.2500, Rs.5200, Rs.3000 and Rs.2000. Using 0.05 L.O.S, conclude whether his work is below standard or not? Construct the null hypothesis and mention whether you accept or reject the null hypotheis? How?

Also calculate the descriptive statistics for the data.