

DOON UNIVERSITY, DEHRADUN

Final Semester Examination, 2015

School of Social Sciences

Msc.Economics Integrated (Third Semester)

Course Code: SSEI-215 Statistical Methods III

Time Allowed: 3 Hours

Maximum Marks: 30

Note: Attempt All Questions from Sections A & any two questions from Section B.

Good luck☺

Section A (Attempt all questions)**(10 marks)**

- 1) If $M.R > 1$ it denotes _____. Suppose, an intelligence test is conducted and Amit I.Q score was found to be 180 and Mohit's I.Q score was found to be 90. How would you classify each person on the basis of Herill's classification. Do you think Amit is twice as capable & intelligent as of Mohit?
- 2) Fill in the blanks:-

Age(X)	l_x	d_x	q_x (per 1000)	p_x	L_x	T_x	E_x^o
10	7,62,227	?	?	?	?	2,72,96,632	?
11	7,58,580	-	-	-	-	?	?

- 3) If Birth rates are more than death rates, what would be the range of Vital Index? Explain with the help of an example
- 4) Give any two drawbacks of Registration method of Vital statistics.
- 5) If a country is highly developed, what would be the shape of Age pyramid curve? Draw the curve and explain briefly.

Section B (Attempt any two questions)**(20 marks)**

- 1.) a) What do you understand by the terms Validity & Reliability?
 b) Is it possible to increase or decrease both the coefficient? If so how?
 c) Can we find validity for infinite length?
 d) Explain the most efficient method of determining reliability explaining all notations.
 Explain with the help of example. (4+2+2+2)

OR

- a) A certain test of 120 items has its validity coefficient 0.50 & reliability coefficient 0.65. If the numbers of items have increased upto 600 items, will the coefficients change? How?
 b) How much the test should be lengthened to raise the self correlation to 0.75?
 c) If the standard deviation is 15 in the initial question, what would be the estimated reliability coefficient of another test with standard deviation equal to 10? (Assume same S.E)
 d) If the ranking of an individual on mannerisms & etiquettes is 15 and there are 30 students in a class. Find out the corresponding score of the individual if the score are calculated on a scale of 10. (4+2+2+2)

- 2.) Letter Grades A, B, C, D, E (E being the highest grade & A being the lowest grade) are assigned by two teachers Mr. Rawat & Mr. Gupta for the discipline. The table given below gives the distribution of the proportion of individuals in each rating. Find the numerical scores corresponding to each grade.

Discipline →	A	B	C	D	E
Teacher ↓					
Mr. Rawat	0.10	0.40	0.30	0.10	0.10

Mr.Gupta	0.20	0.50	0.20	0.05	0.05
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Please draw diagrams for each teacher

3.) A) Calculate the T-Scores, Percentile Scores & Normalized Scores for the following test scores:-

X(Score)	1	2	3	4	5	6	7	8
Cumulative Score	4	10	20	30	55	77	95	100

B) The students of Doon University were being tested for Personality trait. Find out the test reliability.

There were two question papers formed with same difficulty level Set A & Set B

Students	1	2	3	4	5	6	7	8	9
Score in the Set A	17	18	25	41	52	68	69	73	83
Score in the Set B	16	30	33	42	52	61	65	78	85

Also, mention what type of test it is?