Roll No. .....

71105

M. A. Economics 1st Sem.

Examination – December, 2015

STATISTICAL METHODS - I

Paper : P-V

Time : Three Hours] *[Maximum Marks : 80*

Before answering the question, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each of the four Unit. Question No. 9 in Unit - V is *compulsory*. All questions carry equal marks.

UNIT – I

1. Calculate the mode from the following table by grouping method : 16

Value :	0-5	5-10	10-15	15-20	20-25	25-30	30-35
Frequency :	1	2	10	4	10	9	2

2. Discuss in brief merits and demerits of various measures of central tendency. 16

UNIT – II

3. Find out Kelly's coefficient of skewness based on Percentiles : 16

Marks :	0-10	10-20	20-30	30-40	40-50	50-60
No. of Students :	4	6	20	10	7	3

4. What are the various measures of dispersion ? Explain the merits and demerits of each. 16

UNIT – III

5. Define a time series. Explain the components and utility of time series. 16

6. Calculate Laspeyre's, Paasche's and Fisher's Ideal Index for the following data : 16

Commodity	1970		1990	
	Price	Expenditure	Price	Expenditure
A	8	100	10	90
B	10	60	11	66
C	5	100	5	100
D	3	30	2	24
E	2	8	4	20

UNIT – IV

7. Discuss the classical and Relative frequency approaches to the theory of probability. 16

8. In a bolt factory machine A, B and C manufacture respectively 25%, 35% and 40% of the total of their output 5%, 4%, 2% are defective bolts. A bolt is drawn at random from the product and is found to be defective. What is the probability that it was manufactured by machine C ? 16

UNIT – V

9. Explain the following terms in **(20-30)** words :

$8 \times 2 = 16$

(i) Individual series

(ii) Quartiles

(iii) Standard deviation

(iv) Lorenz curve

(v) Semi Average method

(vi) Dependent events

(vii) Sample space

(viii) Time Reversal Test