MA ECONOMICS SECOND SEMESTER STATISTICAL TECHNIQUES MEC – 204

Duration: 3 Hrs.

Marks: 70

PART : A (OBJECTIVE) = 20 PART : B (DESCRIPTIVE) = 50

[PART-B:Descriptive]

Duration: 2 Hrs. 40 Mins.

Marks: 50

[Answer question no. One (1) & any four (4) from the rest]

1. a. Write a note on advantage of Graphical Representation.

b. Draw an ogive from the following data and find median from the ogive.

Class	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60
Frequency	6	9	13	23	19	15	9	6

2. a. Define census & sample. Mention three advantages and disadvantages of census. 5+5=10

b. Distinguish between primary & secondary data.

- **3. a.** What do you mean by measures of central tendency? Why it is called measures 5+5=10 of location ? Write the formula different measures of central tendency.
 - **b.** Find Mean Deviation about mean and Standard Deviation from the following data

Class	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	8	12	25	40	35	20	10

4. a. Given that $r_{xy} = 0.6$, Cov (x, Y) = 7.2, Var(y) = 16, find the standard deviation of x. 2+3+5

b. State three properties of correlation coefficient . Prove one of them.

c. Find the correlation coefficient between x and y from the following data and interpret the result

X: 80	76	72	68	64	60
Y: 73	59	66	45	52	38



5+5=10

=10

5. a. What do you mean by term Index number? Mention the different uses of Index number.

5+5=10

2+2+6

2+3+5

=10

b. Why Fishers index number is said to be ideal index number Calculate Fishers's ideal Index number from the following data and show that it satisfies both the Time Reversal Test and Factor Reversal Test

Commodity	20	05	2009		
Commodity	Price	Value	Price	Value	
		100	12	96	
A	10	96	8	104	
С	12	144	15	120	
D	20	300	25	250	
E	5	40	8	64	
F	2	20	4	24	

- a. Define time series. What are its component? Enumerate the objective of analysis 5+5=10 of time series.
 - **b.** State merits and demerits of Moving Average method. From the data given below Calculate 3 yearly weighted moving averages, the weights being 2,3,3.

Year	1998	1999	2000	2001	2002	2003	2004
Production	5	7	3	2	4	6	3

7. a. Distinguish between correlation and regression in context of statistic.

b. Why there are always two lines of regression?

c. Find the line of regression of Y on X from the following data

X: 10 20 30 40 50 60 Y: 4 12 20 24 32 38

Also find the value of y when x = 3 and x = 65

8. a. Give an example of events which are at the same time equally likely, mutually exclusive and exhaustive.

b. Give the classical definition of probability with example. Four coins are tossed. What is the probability of getting

i. at least one head

ii. head & tail alternately.

c. What is the probability of an impossible event? A sub committee of 6 members is to be formed out of a group consisting of 7 men and 4 ladies. Find the probability that the sub- committee will consist of at least 2 ladies.

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REV-00 2017/06		·
MEC/47/52 MA ECONOMICS	7. In drawing histogram the class intervals should be	
	a. Discrete	
SECOND SEMESTER	b. Continuous	
STATISTICAL TECHNIQUES	c. Both a) & b)	
MEC-204	d. None of these	
Duration: 20Mnts. Marks: 20	8. In a frequency curve when mean>. Median> mode, the	curve is said to be
[PART-A: Objective]	curve	
	a. Positively skewed	
Choose the correct answer from the following: 1×20=20	b. Negatively skewed	
1is a techniques which enables us to draw inferences about the entire	c. Symmetrical d. None of these	
population simply by studying a few of them.	u. None of these	
a. Census	9. Cost of living index numbers are also known as	index numbers.
b. Sampling	a. wholesale price	
c. branching	b. Retail price	
d. None of these	c. Consumer price	
2. Publications of Universities and Research institutes are the sources of data.	d. None of these	
a. Primary		
b. Secondary	10. $P(Certain Set) = ?$	
c. census	a. 0	
d. None of these	b. 1	
3. Coefficient of skewness is unity	c. 2	
a. less than	d. All of These	
b. Greater than		
c. Equal to	11. $P(AU B) = P(A) + P(B)$, implies A and B are	
d. None of these	a. Independentb. Mutually Exclusive	
4 For a qualitative shares on a size witchly assure	c. Equally likely	
 For a qualitative phenomenon is a suitable average a. Mean 	d. None Of these	
b. Median		
c. Mode	12. Both of the event A and B occur is expressed as	
d. None of these	a. (AUB)	
E The sum of deviations of the values from their mean is shown is	b. $(A \cap B)$	
 The sum of deviations of the values from their mean is always is a. 0 	c. $\overline{(A \cap B)}U(A \cap \overline{B})$	
b. 1	d. None of these	
c. 2		
d. None of these	13. The coefficient of correlation is independent of	
6 Eroquencies which ecour repeatedly in a test serve are alled	a. change of scale only.	
 Frequencies which occur repeatedly in a test score are called a. Mean 	b. change of origin only.	
b. Median	c. both change of scale and origin.	
c. Mode	d. neither change of origin nor change of scale.	

d. None of these

b. Perpendicular c. Coincide d. None of these Serial two of a. greater than unity b. Less than unity c. Equal to unity d. None of these If the price of a commodity in the current year be 25% in excess over the base year price, then the price index for the commodity is	a. parallel					
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Scrutinizer's Signature

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