Reg. No.....

NAL YEAR B.Com. DEGREE EXAMINATION, SEPTEMBER 2004

Part III—Commerce

Model I

Paper I—BUSINESS STATISTICS

(2001 admissions)

hree Hours

Maximum : 80 Marks

Answers may be written **either** *in English* **or** *in Malayalam.*

Part A

Answer any **ten** *questions.*
Each question carries 1 *mark.*

What is sampling error ?

What is general purpose table ?

What is an Ogive ?

State the formula for finding out mean deviation in continuous series.

Define Regression.

Why index numbers are called "barometer of economic activity" ?

What is Deflating ?

What do you mean by Secular Trend ?

Define Correlation.

What do you mean by "leptokurite" and "platykuriaie" ?

Define Standard Deviation.

How many words can be formed out of the letters of the word "TRIANGLE" which will begin with "T" ?

(10 × 1 = 10 marks)

Part B

Answer any **ten** *questions.*
Each question carries 4 *marks.*

State the merits and demerits of Arithmetic mean.

Why is arithmetic mean considered to be the best average ?

Write down the formula for finding (a) Mean ; (b) Median ; (c) Mode ; (d) Geometric Mean in a continuous series.

State the properties of a good measure of dispersion.

Turn over

17. Give the merits and demerits of Mean Deviation.

18. Calculate standard deviation for the following data :—

Size		*Frequency*
0—10	...	10
10—20	...	15
20—30	...	25
30—40	...	25
40—50	...	10
50—60	...	10
60—70	...	5

19. Calculate Mean Deviation about mean for the following frequency distribution :—

Class		*Frequency*
0—10	...	4
0—20	...	6
20—30	...	10
30—40	...	20
40—50	...	10
50—60	...	6
60—70	...	4

20. Construct the cost of living Index number from the following :—

Group		*Index*	*Weight*
A	...	350	5
B	...	200	2
C	...	242	3
D	...	150	1
E	...	250	2

21. A subcommittee of 6 members is to be formed out of a group consisting of 7 men and 4 Obtain the probability that sub committee will consist of : (i) Exactly two ladie (ii) At least two ladies.

22. Draw two Ogive curves for the following data and estimate the median value :—

Class		*Frequency*
0—10	...	5
10—20	...	10
20—30	...	18
30—40	...	12
40—50	...	5

Draw a frequency polygon to the following frequency distribution :—

Marks		*No. of students*
10—20	...	5
20—30	...	8
30—40	...	15
40—50	...	20
50—60	...	12
60—70	...	7

Two ladies were asked to rank 7 different types of lipsticks. The ranks given by them are given below :

Lipsticks	...	A	B	C	D	E	F	G
Reena	...	2	1	4	3	5	7	6
Radha	...	1	3	2	4	5	6	7

Calculate Spearman's Correlation Co-efficient.

(10 × 4 = 40 marks)

Part C

Answer any **two** *questions.*
Each question carries 15 marks.

From the following data, calculate Karl Pearson's Coefficient of skewness :—

Marks more than		*No. of students*
0	...	150
10	...	140
20	...	100
30	...	80
40	...	80
50	...	70
60	...	30
70	...	14
80	...	0

From the data given below, state which series is more consistent :

Variable		*Series A*	*Series B*
10—20	...	10	18
20—30	...	18	22
30—40	...	32	40
40—50	...	40	32
50—60	...	22	18
60—70	...	18	10

The following table shows the ages (X) and blood pressure (Y) of 8 persons :—

X :	52	63	45	36	72	65	47	25
Y :	62	53	51	25	79	43	60	33

Obtain the regression equation of Y on X and also find the expected blood pressure of a person who is 49 years old.

(2 × 15 = 30 marks)