

2020-21
Time - 3 hours
Full Marks – 80

*Answer **all groups** as per instructions.
Figures in the right hand margin indicate marks.
Candidates are required to answer
in their own words as far as practicable.*

Group-A

1. Answer all questions or fill in blanks as required. [1x12]
- a) _____ is not affected by extreme value.
 - b) In a moderately skewed distribution, mode = _____ median minus mean_____.
 - c) Arranging data into groups or _____ is classification.
 - d) If $\bar{X}=64$ and variance = 64, the C.V. will be _____.
 - e) The co-efficient of correlation is independent of change of _____.
 - f) Laspeyre's price index number formula is _____.
 - g) A straight line trend is represented by the equation_____.
Express in one word.
 - h) The measure which divides the data set in to 100 equal parts-
 - i) Presentation of data in rows and columns-
 - j) The root-mean-square deviation from mean-
 - k) When two variables move in the same direction, the correlation will be-
 - l) Row heading-

Group-B

2. Answer any eight of the following questions within two or three sentences each. [2x8]
- a) What are different types of series?

- b) Define Geometric Mean.
- c) Write the relationship of AM, GM and HM.
- d) Find mode of 50, 51, 52, 49, 51, 55, 45 and 51.
- e) Why SD is considered as the best measure of dispersion?
- f) Define Mean Deviation.
- g) Define Correlation.
- h) Name different types of correlation.
- i) What are the types of Index Number?
- j) What is Time series?

GROUP-C

3. Write notes on any eight of the followings within 75 words: [3x8]
- a) State three objectives of classification.
 - b) What is footnote?
 - c) Median is a good average. Comment.
 - d) Find the H.M. of 2, 6 and 8.
 - e) Find the GM. of 2, 4, 8 and 64.
 - f) If C.V. of a series is 60% and S.D. = 15, find mean.
 - g) If $\sum x=1350$, $N=10$, S.D. = 13.5, find C.V.
 - h) In a correlation analysis $r=0.86$ and P.Er.= 0.05, find N.
 - i) Find co-efficient of correlation
 $\sum xy=190$, $\sum x^2=450$, $\sum y^2 = 520$.
 Where $X = (X - \bar{X})$ and $y = (Y - \bar{Y})$
 - j) Given $\sum p_1q_0 = 1570$, $\sum p_0q_0 = 1330$, $\sum p_1q_1 = 2057$ and $\sum p_0q_1 = 1726$. Find Fisher's Price Index.

GROUP- D

4. Answer any four questions within 500 words each. [7x4]
- a) What are different types of frequency distribution? Explain them with example.
 - b) Discuss various problems in the construction of index numbers.

c) Explain the method of odd year moving average method with an example.

d) Calculate median from the following data

<u>Class Interval</u>	<u>Frequency</u>
210-219	14
220-229	20
230-239	30
240-249	55
250-259	42
260-269	20
270-279	19

e) Calculate standard deviation and its co-efficient from the following data:

X:	4	10	9	11	15	20
F:	3	5	12	8	10	7

f) Calculate co-efficient of correlation of X and Y.

X:	80	62	45	85	57	90	98
Y:	125	135	100	140	150	165	140

g) Find the missing frequency of the following data if mean is 50 and total frequency is 120.

<u>Class Interval</u>	<u>Frequency</u>
0-20	17
20-40	f_1
40-60	32
60-80	f_2
80-100	19
