

SARASWAT VIDYALAYA'S
SRIDORA CACULO COLLEGE OF COMMERCE & MANAGEMENT STUDIES
KHORLIM, MAPUSA, GOA

B.Com – Honors / B.Com - General (w. e. f. 2017-18)

S.Y.B.COM. SEMESTER END EXAMINATION, JANUARY 2021

REGULAR SEMESTER III (Online mode)

Subject:- BUSINESS STATISTICS - (GE-3)
(CBCS)

M.Marks:- 40
Duration:- 2 hrs.

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- Instructions:- 1. Each Question carries 10 marks (2+2+6 or 4+6).
2. Answer any **four** questions from the following
3. Use of non-programmable calculator is allowed.
4. Sub-questions of a question should be answered continuously.

Q. I. Attempt the following

- a) Differentiate between Population and Sample.
- b) Differentiate between Sample survey and Census survey.
- c) Find the median marks from the following data.:

Marks in Statistics (Class mark)	10	30	50	70	90
No. of students	3	7	9	7	4

Q. II. Attempt the following

- a) Differentiate between less than Ogive and more than Ogive.
- b) Differentiate between absolute and Relative measures of variation.
- c) Fit a linear trend by the method of least squares to the following closing prices of limited company listed on stock exchange for 6 years.

Month	1911	1912	1913	1914	1915	1916
Closing price (Rs. lakhs)	1325	1310	1340	1355	1375	1430

Q. III. Attempt the following

- a) For a age distribution of 100 employees, mean was found to be 36.3 years. But later, it was discovered that the frequency for class-interval 20 – 30 was wrongly taken as 21 instead of 12. Find the correct average mean.
- b) A shop had sales from four departments as follows;

Department	Food	Clothing	Furniture	Electrical
Sale ('000)	720	1080	2160	360

Represent the above data by means of Pie Diagram.

Q. IV. Attempt the following

- a) Given below are the share price (in Rs.) of two companies. Which company is more stable with regards to the price of share ?

Company A (in Rs.)	130	139	136	249	220
Company B (in Rs.)	36.5	33.5	37.9	35.6	39.8

- b) Calculate i) Value index number

ii) Fisher's quantity index number from the following data

Commodity	2015		2010	
	Price	Quantity	Price	Quantity
A	20	18	15	2
B	50	2	40	0.5
C	60	4	50	9
E	70	12	60	3

Q. V. Attempt the following

- a) Fit a trend line by method of semi-averages for the following data and hence find the trend value in the year 2001.

Year	1995	1996	1997	1998	1999	2000	2001
No. of production unit	125	128	133	135	140	141	143

- b) An analysis of the monthly wages paid to the workers in two firms belonging to the same management, gives the following results:

Firm	No. of wage earners	Mean wage (in Rs)	S.D. of wages (in Rs.)
A	600	450	6
B	400	550	8

- i) Which firm pays larger amount as monthly wages?
 ii) Which firm has greater variability in individual wages?
 iii) What is the mean monthly wage of all the workers taken together?

Q. VI. Attempt the following

- a) Construct an index number for the following data using simple average of price relative method. Take base year as 2000:

Commodity	Price in Rs. (2003)	Price in Rs. (2000)
Sugar	15.20	14.25
Wheat	13.75	12.95
Rice	11.95	12.15
Daal	18.10	18.85
Rava	12.20	13.00

- b) The table below gives the frequency distribution of apples.

Weight in gms	110-120	120-130	130-140	140-150	150-160	160-170
Frequency	8	11	12	8	5	6

Find the heaviest weight of the lightest 40 % of the apples.

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