PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BCom(CS) / BCom DEGREE EXAMINATION DECEMBER 2018
(Second Semester)

Branch - CORPORATE SECRETARYSHIP / COMMERCE

STATISTICS

Time : Three Hours   Maximum : 75 Marks

SECTION-A (20 Marks)
Answer ALL questions
ALL questions carry EQUAL marks (1 0 x 2 = 20)

1   Define Statistics.
2   What are the function of statistics?
3   What is a random sampling?
4   What is histogram?
5   What do you mean by a measure of central tendency?
6   Define mean deviation and standard deviation.
7   Define Skewness and Kurtosis.
8   Define rank correlation. When it is preferred to Karl Pearson's coefficient of correlation?
9   Define index numbers. Give its advantage.
10 What s Fisher's index numbers? Why it is called ideal?

SECTION - B (25 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks (5 x 5 = 25)

1 1 a Explain the characteristics of statistics.

OR

b Define secondary data. State the chief sources and point out the dangers involved in their use.

12. a Explain the method of drawing stratified random sample.

OR

b Explain the cumulative frequency distribution with suitable example.

13 a <u>Compute median from the following data:</u>

Mid - Value	115	125	135	145	155	165	175	185	195
Frequency	6	25	48	72	116	60	38	22	3

OR

b Find quartile deviation and coefficient of quartile deviation from the following data:

Marks	10	20	30	40	50	60
No of students	4	7	15	8	7	2

14 a Find Bowley's coefficient of Skewness for the following frequency distribution.

No. children per family	0	1	2	3	4	5	6
No. of families	7	10	16	25	18	11	8

OR

b Calculate coefficient of Skewness by Karl Pearson's method from the following data.

Profits (Rs.Lakhs)	10-20	20-30	30-40	40-50	50-60
No.of companies	18	20	30	22	10

15 a Explain the time reversal test and factor reversal test for judging the suitability of an index number.

OR

 b Calculate the index number using both the Aggregate expenditure method and family budget method for the year 2013 with 2003 as the base year from the following data.   *

Commodity	Price in 2003	Price in 2013	Quantity in 2003
A	8.00	12.00	100
B	6.00	7.50	■25
C	5.00	5.25	10
D	48.00	52.00	20
E	15.00	16.50	25
F	9.00	9.00	30

SECTION - C (30 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 1 0 = 30)

16   Explain the various methods of collecting primary data.

17   Discuss the methods of presentation of statistical data through diagrams and graphs.

18   Find standard deviation from the following data.

Age under	10	20	30	40	50	60	70	80
No of persons dying	15	30	53	75	100	110	115	125

19   Calculate the correlation coefficient from the following data for marks obtained in commerce(X) and statistics(Y)

X	50	60	58	47	49	33	65	43	46	68
Y	48	65	50	48	55	58	63	48	50	70

20   From the following data calculate price index number for 2015 with 2005 as base year by (i) Laspeyere's method,(ii) Paasche's methods (iii) Marshal - Edgeworth method and (iv) Fisher's ideal method:

Commodity	2005		2015	
	Price	Quantity	Price	Quantity
A	20	8	40	6
B	50	10	60	5
C	40	15	50	15
D	20	20	20	25

Z-Z-Z   END