

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCom (CS) DEGREE EXAMINATION MAY 2019
(Second Semester)

Branch – CORPORATE SECRETARYSHIP

STATISTICS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

1. Define statistics.
2. What is Primary Data?
3. Mention the two types of Sampling method.
4. Give any two examples for diagrams.
5. Define average.
6. Calculate range and its co-efficient for the following data:
10, 8, 5, 16, 20, 25, 14
7. What is Skewness? Mention the types of skewness.
8. Write the types of correlation.
9. Why Fisher's index is called ideal index?
10. Write the various methods of finding cost of living index.

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a. Briefly explain the limitations of Statistics.
OR
- b. Explain the various methods of collecting primary data.
- 12 a. Explain stratified sampling method. Mention its merits and demerits.
OR
- b. Draw a pie diagram for the following data of Sixth Five-Year plan public sector outlays:

Agriculture	13%	Industry and Minerals	16%
Irrigation, etc.,	15%	Transport	20%
Energy	30%	Others	6%

- 13 a. Write the various properties of good average.
OR
- b. Calculate Quartile deviation for the following data. Also find its relative measure.

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

- 14 a. Given $Q_1=18$, $Q_3=25$, Mode=21, Mean=18, find the co-efficient of Skewness.

OR

- b. Calculate the Spearman's rank correlation coefficient from the following data:

Price of Tea (Rs.)	75	88	95	70	60	80	81	50
Price of Coffee (Rs.)	120	134	150	115	110	140	142	100

- 15 a Write a note on fixed base and chain base index numbers.

OR

- b Compute consumer price index number from the following:

Group	Base Year Price (Rs.)	Current Year Price (Rs.)	Weight (%)
Food	400	550	35
Rent	250	300	25
Clothing	500	600	15
Fuel	200	350	20
Entertainment	150	225	5

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 How is a questionnaire prepared? Discuss in detail the various steps involved in it.
- 17 Draw histogram and ogives from the following data:

Profits (in lakhs)	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No. of lakhs	6	8	12	18	25	16	8	5	2

- 18 Calculate Mean and Standard deviation of following frequency distribution of marks:

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of Students	5	12	30	45	50	37	21

- 19 Calculate Karl Pearson's coefficient of Correlation from the following data and interpret its value:

Roll No. of Students	1	2	3	4	5
Marks in Accountancy	48	35	17	23	47
Marks in Statistics	45	20	40	25	45

- 20 Compute Laspeyres, Paasche's and Fisher's index numbers from the following data:

Item	Base Year		Current Year	
	Price (Rs.)	Quantity	Price (Rs.)	Quantity
A	5	25	6	30
B	3	8	4	10
C	2	10	3	8
D	10	4	3	5