

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

**BCom DEGREE EXAMINATION DECEMBER 2019**  
(First Semester)

Branch - **COMMERCE (BUSINESS ANALYTICS)**

**STATISTICS FOR BUSINESS ANALYTICS**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10x 1 = 10)

- 1 “Statistics provides tools and techniques for research workers” was stated by  
(i) John I.Griffin (ii) W.I. King  
(iii) A.M.Mood (iv) A.L.Boddington
- 2 Mailed questionnaire method of enquiry can be adopted if respondents.  
(i) Live in cities (ii) Have high income  
(iii) Are educated (iv) Have low income
- 3 A study based on complete enumeration is known as  
(i) Sample survey (ii) Pilot survey  
(iii) Census survey (iv) None of these
- 4 The column heading of a table are known as  
(i) Sub-titles (ii) Stubs  
(iii) Reference notes (iv) Captions
- 5 Quartiles, Median etc can be found in  
(i) Diagram (ii) Graph  
(iii) Both (a) & (b) (iv) None of these
- 6 Less than O-give and More - than o-give meet at  
(i) Mean (ii) Median  
(iii) Mode (iv) HM
- 7 Relation among A.M, G.M and H.M is  
(i)  $A.M > G.M > H.M$  (ii)  $A.M > G.M > H.M$   
(iii)  $A.M = G.M = H.M$  (iv) None of these
- 8 If  $Q_1 = 250$ ,  $Q_3 = 500$ , then QD is  
(i) 750 (ii) 500  
(iii) 250 (iv) 125
- 9 The degree of peaked ness of a distribution is known as  
(i) Skew ness (ii) Kurtosis  
(iii) Median (iv) None of these
- 10 Regression coefficients are independent of change of  
(i) Origin (ii) Scale  
(iii) Both origin and scale (iv) None of these

**SECTION - B (35 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5x7 = 35)

- 11 a Define statistics. State at least any five limitations.

OR

- 12 a Write a note on: i) Systematic sampling ii) Stratified sampling

OR

- b State the difference between classification and tabulation.

- 13 a Write a note on:

- i) Discrete frequency distribution  
ii) Continuous frequency distribution

OR

- b Draw a histogram and frequency polygon.

Profit (Rs. in Lakhs)	30-40	40-50	50-60	60-70	70-80
No. of firms	3	5	12	8	4

- 14 a Calculate Mean and Median.

Wages (Rs.)	300-500	500-700	700-900	900-1101
No. of workers	25	55	30	20

OR

- b Compute the standard deviation.

Height (in cm)	150-155	155-160	160-165	165-170	170-175
No. of students	15	18	27	24	16

- 15 a Explain the scatter diagram with example.

OR

- b From the following statistics construct the both regression equations.

$$Z_x = 60, Z_y = 40, Z_{xy} = 1150, Z_x^2 = 4160, Z_y^2 = 1720, n = 12$$

### **SECTION - C (30 Marks)**

Answer any **THREE** Questions

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

- 16 What is questionnaire? Explain the characteristics of good questionnaire.

- 17 Explain briefly the four types of classification with example.

- 18 Draw the cumulative frequency curves for the following data.

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of Students	4	8	11	15	12	6	3

- 19 From the following data find out which company's electric bulbs were more valuable as to length of life.

Length of Life of bulbs (in hours)	Samples	
	Company A	Company B
700-900	10	3
900-1100	16	42
1100-1300	26	12
1300-1500	8	3

- 20 Calculate the coefficient of skewness by Karl Pearson's Method

Profit (Rs. in lakhs)	10-20	20-30	30-40	40-50	50-60
No. of companies	18	20	30	22	10

Z-Z-Z

END