PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2024
(Fourth Semester)

Branch – **COSTUME DESIGN AND FASHION**

APPAREL STATISTICS

Time: Three Hours   Maximum: 50 Marks

SECTION-A (5 Marks)
Answer ALL questions
ALL questions carry EQUAL marks   (5 x 1 = 5)

1 Identify when a person is appointed by the investigator for the purpose of data collection is called-----
   (i) Respondent   (ii) Informant
   (iii) Enumerator   (iv) Enquirer

2 Which of the following is a two dimensional diagram?
   (i) Simple Bar Diagram   (ii) Subdivided Bar diagram
   (iii) Rectangular diagram   (iv) Multiple bar diagram

3 Find the average marks of 5 students in an examination is 45. If each student is given 5 marks as grace mark, the new mean will be---
   (i) 40   (ii) 45
   (iii) 46   (iv) 50

4 Indicate, when the correlation coefficient between X and Y is 0.5, the correlation coefficient between X-1 and Y-1 is ?
   (i) 0.4   (ii) 0.6
   (iii) 0.5   (iv) 1

5 Which of the following method assumes that the data has no trend?
   (i) Least squares   (ii) Moving averages
   (iii) Graphical method   (iv) Simple averages

SECTION - B (15 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks   (5 x 3 = 15)

6 a Bring out the functions of Statistics.

OR

   b Classify the differences between Primary and Secondary data.

7 a Explain the objectives of Classification.

OR

   b Narrate from the following frequency table using exclusive class intervals of magnitude 20 for the marks of 30 students in a class.

12	23	45	34	34	56	62	96	88	32
22	45	87	76	45	34	23	22	12	9
13	4	35	36	67	78	79	86	92	25

8 a Outline the merits and demerits of mean.

OR

   b Calculate the median value from the following.

Profit	122	142	134	136	125
No. of days	12	15	26	30	23

9 a State the properties of correlation coefficient.

OR

   b Calculate the rank correlation coefficient of X & Y.

X	23	34	65	35	57	14
Y	45	56	34	67	14	25

10 a   Explain the components of time series.

OR

b   Show the three yearly moving averages.

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006
Price	16	18	23	45	47	56	45	65	76

SECTION -C (30 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks   (5 x 6 = 30)

11 a   Discuss the sources of secondary data.

OR

b   Justify with your answer for Mailed questionnaire method and schedules sent through enumerators.

12 a   Elucidate the various types of classification.

OR

b   Discover the median value by graphically.

Values	0-2	2-4	4-6	6-8	8-10
No. Of values	10	18	30	12	10

13 a   Identify the city in which the gold price is more stable.

Day	Mon	Tue	Wed	Thu	Fri	Sat
City A	498	500	505	504	502	509
City B	500	505	502	498	496	505

OR

b   Summarize the mean value.

Values below	5	10	15	20	25	30	35	40	45
No. Of values	29	224	465	582	634	644	650	653	655

14 a   Justify the rank correlation coefficient for the following data and offer your comments.

Price	50	60	65	70	75	40	70	80
Demand	80	71	60	75	90	82	70	50

b   Discover Y when X=20 and also estimate X when Y=10 using regression equations.

X	10	12	13	12	16	15
Y	40	38	43	45	37	43

15 a   Examine the method of least squares by estimating the sales for the year 2011.

Year	2004	2005	2006	2007	2008
Sales	100	120	140	160	180

OR

b   Compare the seasonal indices by the method of simple averages.

Year	IQ	IIQ	IIIQ	IVQ
1994	78	66	84	80
1995	76	74	82	78
1996	72	68	80	70
1997	74	70	84	74
1998	76	74	86	82