

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2026
(Fourth Semester)
Branch - COSTUME DESIGN & FASHION

APPAREL STATISTICS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Select the following is a primary source of data? a) Census report b) Questionnaire survey c) Journal article d) Government publication	K1	CO1
	2	Show, the preparation of a questionnaire is important because: a) It helps in data collection in a structured way b) It summarizes data c) It calculates mean d) It forecasts trends	K2	CO1
2	3	Match, a histogram is used for representing: a) Continuous data b) Categorical data c) Nominal data d) Ordinal data	K1	CO1
	4	Relate, Which diagram is suitable for showing parts of a whole? a) Bar diagram b) Pie chart c) Histogram d) Ogive	K2	CO1
3	5	Match, Standard deviation is a measure of: a) Central tendency b) Dispersion c) Correlation d) Regression	K1	CO1
	6	Relate, Coefficient of variation is used to: a) Compare variability of two datasets b) Find median c) Draw histogram d) Tabulate data	K2	CO1
4	7	Match, Karl Pearson's coefficient measures: a) Linear relationship between variables b) Trend in time series c) Frequency distribution d) Seasonal variation	K1	CO2
	8	Show, Spearman's rank correlation is used when: a) Data is ordinal b) Data is continuous c) Data is categorical d) Data is nominal	K2	CO2
5	9	Which of the moving average method is used to estimate: a) Trend b) Mean c) Correlation d) Frequency	K1	CO3
	10	Classify, Seasonal index is calculated to: a) Measure seasonal variations b) Find mean c) Calculate SD d) Construct bar diagram	K2	CO3

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the purpose of preparing a questionnaire and two key points to consider while designing it	K2	CO1
	(OR)			
	11.b.	Explain the difference between primary and secondary data with two examples each		

Cont...

2	12.a.	Construct a pie chart for the following sales data (Problem)	K3	CO1																						
		<table><tr><td>Product</td><td>A</td><td>B</td><td>C</td><td>D</td></tr><tr><td>Units</td><td>60</td><td>40</td><td>80</td><td>50</td></tr></table>			Product	A	B	C	D	Units	60	40	80	50												
	Product	A			B	C	D																			
Units	60	40	80	50																						
(OR)																										
	12.b.	Explain briefly the difference between frequency table and classification table																								
3	13.a.	Analyze, the marks of 10 students are:: <table><tr><td>Student</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>Marks</td><td>50</td><td>55</td><td>60</td><td>65</td><td>55</td><td>70</td><td>75</td><td>60</td><td>65</td><td>70</td></tr></table> Calculate: i) Mean, ii) Median	Student	1	2	3	4	5	6	7	8	9	10	Marks	50	55	60	65	55	70	75	60	65	70	K4	CO1
	Student	1	2	3	4	5	6	7	8	9	10															
	Marks	50	55	60	65	55	70	75	60	65	70															
(OR)																										
13.b.	Explain the merits and demerits of mean, median, and mode.																									
4	14.a.	Analyze, marks in X and Y of 5 students: <table><tr><td>Student</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>X</td><td>40</td><td>50</td><td>60</td><td>70</td><td>80</td></tr><tr><td>Y</td><td>45</td><td>55</td><td>60</td><td>75</td><td>85</td></tr></table> Find correlation coefficient.	Student	1	2	3	4	5	X	40	50	60	70	80	Y	45	55	60	75	85	K4	CO2				
	Student	1	2	3	4	5																				
	X	40	50	60	70	80																				
Y	45	55	60	75	85																					
(OR)																										
14.b.	Explain importance of regression analysis in predicting relationships between variables																									
5	15.a.	The following are the Sales of a shop for 6 years: <table><tr><td>Year</td><td>2020</td><td>2021</td><td>2022</td><td>2023</td><td>2024</td><td>2025</td></tr><tr><td>Sales</td><td>130</td><td>150</td><td>140</td><td>160</td><td>155</td><td>165</td></tr></table> Apply three yearly moving averages	Year	2020	2021	2022	2023	2024	2025	Sales	130	150	140	160	155	165	K3	CO3								
	Year	2020	2021	2022	2023	2024	2025																			
	Sales	130	150	140	160	155	165																			
(OR)																										
15.b.	Explain the components of a time series and their importance.																									

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO																					
1	16	Explain the methods of collecting primary & secondary data.	K4	CO1																					
2	17	Explain the various types of classification of data.	K4	CO1																					
3	18	Analyze grouped marks of 10 students: <table border="1"><tr><td>Class Interval</td><td>30-40</td><td>40-50</td><td>50-60</td><td>60-70</td><td>70-80</td></tr><tr><td>Frequency (f)</td><td>11</td><td>31</td><td>41</td><td>21</td><td>10</td></tr></table> Calculate mean, median and mode.	Class Interval	30-40	40-50	50-60	60-70	70-80	Frequency (f)	11	31	41	21	10	K4	CO1									
Class Interval	30-40	40-50	50-60	60-70	70-80																				
Frequency (f)	11	31	41	21	10																				
4	19	Analyze, marks in Math e matics(X) and Statistics (Y) of 6 students: <table border="1"><tr><td>Student</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>X</td><td>36</td><td>42</td><td>48</td><td>54</td><td>60</td><td>66</td></tr><tr><td>Y</td><td>40</td><td>46</td><td>52</td><td>58</td><td>63</td><td>70</td></tr></table> Find correlation coefficient and regression equations of Y on X. of Y on X.	Student	1	2	3	4	5	6	X	36	42	48	54	60	66	Y	40	46	52	58	63	70	K4	CO2
Student	1	2	3	4	5	6																			
X	36	42	48	54	60	66																			
Y	40	46	52	58	63	70																			
5	20	Test for the quarterly sales (units) of a company for one year are: Quarter Q1 Q2 Q3 Q4 Sales 210 190 230 270 Calculate the seasonal indices using the simple average method and identify the quarter with the highest seasonal effect.	K4	CO3																					