

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2025
(Fourth Semester)

Branch - COSTUME DESIGN AND 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	In Indirect oral interview information is collected from a) Respondent b) Informant c) Enumerator d) Enquirer	K1	CO1
	2	The list of questions in which the respondent fills the responses is called a --- a) Question paper b) Questionnaire c) Schedule d) Response Sheet	K2	CO1
2	3	A graphical tool used to locate the mode is ---- a) Pie chart b) Bar chart c) Histogram d) Ogives	K1	CO1
	4	Which of the following diagrams can be used to represent the gender wise distribution of the population? a) Simple Bar diagram b) Pie Diagram c) Subdivided Bar diagram d) Both (a) and (b)	K2	CO1
3	5	The standard deviation of three values a, b, c is 0.4. What is the standard deviation of a-3, b-3, c-3? a) 0.1 b) 0.4 c) 1.2 d) 0.12	K1	CO1
	6	If the variance is 4 and mean is 10, what is the coefficient of variation? a) 40 b) 20 c) -20 d) Plus or Minus 20	K2	CO1
4	7	To find the intensity of interrelationship between drinking habit and beauty, which of the following measures can be used? a) Karl Pearson's Method b) Spearman's method c) (a) or (b) d) Regression lines	K1	CO2
	8	Constant term in a regression equation is the ---- of the regression line. a) Intercept b) Origin c) Slope d) ordinate	K2	CO2
5	9	Which of the following is used to predict the future trend value? a) Three yearly moving averages b) Four Yearly Moving averages c) Least square line d) Semi averages	K1	CO3
	10	Which of the following is an assumption of the Method of Simple averages? a) The data has no cyclical variation b) The data has no trend c) The data has a trend d) The data has no seasonal variation	K2	CO3

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks $(5 \times 7 = 35)$

Module No.	Question No.	Question	K Level	CO																											
1	11.a.	Explain the functions of statistics. (OR)	K2	CO1																											
	11.b.	Explain the methods of collecting secondary data.																													
2	12.a.	Classify the components of a table. (OR)	K3	CO1																											
	12.b.	Construct the frequency table using inclusive class intervals 0-19, 20-39---- using the marks of 30 students in a class. <table border="1"> <tr><td>12</td><td>23</td><td>45</td><td>34</td><td>34</td><td>56</td><td>62</td><td>96</td><td>88</td><td>32</td></tr> <tr><td>22</td><td>45</td><td>87</td><td>76</td><td>45</td><td>34</td><td>23</td><td>22</td><td>12</td><td>9</td></tr> <tr><td>13</td><td>4</td><td>35</td><td>36</td><td>67</td><td>78</td><td>79</td><td>86</td><td>92</td><td>25</td></tr> </table>			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
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																						
3	13.a.	Classify the merits and demerits of mean, median and mode. (OR)	K4	CO1																											
	13.b.	Analyze the data below by using mean. <table border="1"> <tr><td>Profit</td><td>0-20</td><td>20-40</td><td>40-60</td><td>60-80</td><td>80-100</td></tr> <tr><td>No. of days</td><td>12</td><td>15</td><td>26</td><td>30</td><td>23</td></tr> </table>			Profit	0-20	20-40	40-60	60-80	80-100	No. of days	12	15	26	30	23															
Profit	0-20	20-40	40-60	60-80	80-100																										
No. of days	12	15	26	30	23																										
4	14.a.	Construct the differences between correlation and regression. (OR)	K3	CO2																											
	14.b.	Apply Spearman's Rank correlation coefficient, for the following data. <table border="1"> <tr><td>X</td><td>80</td><td>91</td><td>99</td><td>71</td><td>61</td><td>81</td><td>70</td><td>59</td></tr> <tr><td>Y</td><td>123</td><td>135</td><td>154</td><td>110</td><td>105</td><td>134</td><td>121</td><td>106</td></tr> </table>			X	80	91	99	71	61	81	70	59	Y	123	135	154	110	105	134	121	106									
X	80	91	99	71	61	81	70	59																							
Y	123	135	154	110	105	134	121	106																							
5	15.a.	Analyze the following data by using the three yearly moving averages. <table border="1"> <tr><td>Year</td><td>1983</td><td>1984</td><td>1985</td><td>1986</td><td>1987</td><td>1988</td><td>1989</td><td>1990</td><td>1991</td><td>1992</td></tr> <tr><td>Value</td><td>21</td><td>22</td><td>23</td><td>25</td><td>24</td><td>22</td><td>25</td><td>26</td><td>27</td><td>26</td></tr> </table> (OR)	Year	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Value	21	22	23	25	24	22	25	26	27	26	K4	CO3					
Year	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992																					
Value	21	22	23	25	24	22	25	26	27	26																					
15.b.	Fit a straight line trend equation by the method of least squares and estimate the trend value for the year 1985. <table border="1"> <tr><td>Year</td><td>1979</td><td>1980</td><td>1981</td><td>1982</td><td>1983</td></tr> <tr><td>Sales in Rs</td><td>100</td><td>120</td><td>140</td><td>160</td><td>180</td></tr> </table>	Year	1979	1980	1981	1982	1983	Sales in Rs	100	120	140	160	180																		
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SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks $(3 \times 10 = 30)$

Module No.	Question No.	Question	K Level	CO																																												
1	16	Explain any three methods of collecting secondary data.	K2	CO1																																												
2	17	Locate the median graphically by drawing Ogives. <table border="1"> <tr><td>Values</td><td>0-2</td><td>2-4</td><td>4-6</td><td>6-8</td><td>8-10</td></tr> <tr><td>No. Of values</td><td>10</td><td>18</td><td>30</td><td>18</td><td>10</td></tr> </table>	Values	0-2	2-4	4-6	6-8	8-10	No. Of values	10	18	30	18	10	K3	CO1																																
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No. Of values	10	18	30	18	10																																											
3	18	Apply median and mode for the following data. <table border="1"> <tr><td>C.I</td><td>0-5</td><td>5-10</td><td>10-15</td><td>15-20</td><td>20-25</td><td>25-30</td><td>30-35</td><td>35-40</td></tr> <tr><td>f</td><td>9</td><td>12</td><td>15</td><td>16</td><td>17</td><td>15</td><td>10</td><td>13</td></tr> </table>	C.I	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	f	9	12	15	16	17	15	10	13	K3	CO1																										
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f	9	12	15	16	17	15	10	13																																								
4	19	Ten competitors in a contest were ranked by three judges A, B and C as follows. Identify the pair of judges who have common ranking style. <table border="1"> <tr><td>Candidates</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>Judge A</td><td>1</td><td>6</td><td>5</td><td>10</td><td>3</td><td>2</td><td>4</td><td>9</td><td>7</td><td>8</td></tr> <tr><td>Judge B</td><td>3</td><td>5</td><td>8</td><td>4</td><td>7</td><td>10</td><td>2</td><td>1</td><td>6</td><td>9</td></tr> <tr><td>Judge C</td><td>6</td><td>4</td><td>9</td><td>8</td><td>1</td><td>2</td><td>3</td><td>10</td><td>5</td><td>7</td></tr> </table>	Candidates	1	2	3	4	5	6	7	8	9	10	Judge A	1	6	5	10	3	2	4	9	7	8	Judge B	3	5	8	4	7	10	2	1	6	9	Judge C	6	4	9	8	1	2	3	10	5	7	K4	CO2
Candidates	1	2	3	4	5	6	7	8	9	10																																						
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Judge B	3	5	8	4	7	10	2	1	6	9																																						
Judge C	6	4	9	8	1	2	3	10	5	7																																						
5	20	Analyze the seasonal indices assuming that the trend is absent. <table border="1"> <tr><td>Year</td><td>IQ</td><td>IIQ</td><td>IIIQ</td><td>IVQ</td></tr> <tr><td>1990</td><td>112</td><td>110</td><td>120</td><td>115</td></tr> <tr><td>1991</td><td>80</td><td>145</td><td>105</td><td>90</td></tr> <tr><td>1992</td><td>95</td><td>100</td><td>140</td><td>80</td></tr> <tr><td>1993</td><td>110</td><td>90</td><td>130</td><td>110</td></tr> <tr><td>1994</td><td>85</td><td>110</td><td>110</td><td>90</td></tr> <tr><td>1995</td><td>92</td><td>120</td><td>100</td><td>85</td></tr> </table>	Year	IQ	IIQ	IIIQ	IVQ	1990	112	110	120	115	1991	80	145	105	90	1992	95	100	140	80	1993	110	90	130	110	1994	85	110	110	90	1995	92	120	100	85	K4	CO3									
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