

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)  
**B.Sc**  
**DEGREE EXAMINATION DECEMBER 2025**  
(Third Semester)

Branch – PSYCHOLOGY

**PSYCHOLOGICAL STATISTICS- II**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (10 × 1 = 10)

Question No.	Question	K Level	CO
1	A subset containing the characteristics of a larger population. a) Sampling errors      b) Sample c) Census      d) Sampling	K1	CO2
2	To search or investigate exhaustively. a) Sample      b) Census c) Research      d) Statistics	K2	CO2
3	The difference between the collected data value and the true value of the population a) Statistical Error      b) Sampling Error c) Type I error      d) Type II error	K1	CO2
4	The error of omission or error of false negative is called a) Type I error      b) Type II error c) Sampling Error      d) Statistical Error	K2	CO2
5	Using computers to solve problems involving real numbers. a) Correlation      b) Scatter diagram c) Regression      d) Numerical computation	K1	CO2
6	This expresses the extent to which two variables are related to each other a) Scatter diagram      b) Numerical computation c) Correlation      d) Regression	K2	CO2
7	The test which uses to compare observed results with expected results. a) Mean      b) Chi-square c) SD      d) Correlation	K1	CO2
8	Randomness and independence is the assumption of _____ tests. a) Sampling      b) Reliability c) Parametric      d) Non-Parametric	K2	CO2
9	To test whether research methods can reproduce the same results multiple times. a) Reliability testing      b) Experiment c) Test-retest      d) Testing	K1	CO2
10	Administering the different versions of an assessment to same group is _____ reliability. a) Experiment      b) Test-retest c) Inter-Rater      d) Parallel forms	K2	CO2

Cont...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

 $(5 \times 7 = 35)$ 

Question No.	Question	K Level	CO
11.a.	Explain cluster sampling with appropriate example  (OR)	K3	CO2
11.b.	Show the various types of Non-Random Sampling Methods.		
12.a.	Compare hypothesis from assumption.  (OR)	K4	CO2
12.b.	Analyse the purpose of z-test with an example.		
13.a.	Distinguish various types of correlation based on its purpose.  (OR)	K4	CO2
13.b.	Demonstrate rank order correlation with an example.		
14.a.	Explain inferential statistics with examples.  (OR)	K3	CO2
14.b.	Explain non-parametric test.		
15.a.	Evaluate test-retest reliability by quoting an appropriate example.  (OR)	K5	CO2
15.b.	Justify the need for face validity.		

**SECTION - C (30 Marks)**

Answer ANY THREE questions

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

Question No.	Question	K Level	CO																																							
16	Differentiate various types of Random Sampling Methods.	K4	CO2																																							
17	Is there any significant difference between crops from two different fields? Use appropriate null hypothesis at 0.05 level of significance.	K4	CO3																																							
18	Differentiate Rank order and Product Moment Correlations.	K4	CO2																																							
19	Investigate whether a stress management programme is effective in reducing Blood Pressure using the sign test.  <table border="1"> <tr> <td>Participant</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> <td>11</td> <td>12</td> </tr> <tr> <td>BP Before</td> <td>05</td> <td>110</td> <td>118</td> <td>101</td> <td>90</td> <td>95</td> <td>125</td> <td>87</td> <td>96</td> <td>92</td> <td>88</td> <td>120</td> </tr> <tr> <td>BP After</td> <td>100</td> <td>99</td> <td>120</td> <td>95</td> <td>89</td> <td>101</td> <td>125</td> <td>85</td> <td>108</td> <td>100</td> <td>80</td> <td>124</td> </tr> </table>	Participant	1	2	3	4	5	6	7	8	9	10	11	12	BP Before	05	110	118	101	90	95	125	87	96	92	88	120	BP After	100	99	120	95	89	101	125	85	108	100	80	124	K5	CO3
Participant	1	2	3	4	5	6	7	8	9	10	11	12																														
BP Before	05	110	118	101	90	95	125	87	96	92	88	120																														
BP After	100	99	120	95	89	101	125	85	108	100	80	124																														
20	Evaluate reliability along with the types.	K4	CO2																																							