

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2022
(Fourth Semester)

Branch – PSYCHOLOGY

STATISTICS FOR PSYCHOLOGY II

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 x 1 = 10)

1. Chi-square is used to analyze
 - (i) Scores
 - (ii) Ranks
 - (iii) Frequencies
 - (iv) Any of these
2. Variance of Chi-square distribution is fixed to
 - (i) 1
 - (ii) k
 - (iii) 2k
 - (iv) 4k
3. Which of the following correlation involves artificial dichotomy?
 - (i) Tetrachoric
 - (ii) Biserial
 - (iii) Phi
 - (iv) Linear
4. Correlation value of 1 (one) shows
 - (i) positive correlation
 - (ii) Negative correlation
 - (iii) Zero correlation
 - (iv) Deviant correlation
5. Which of the following test is used in case of normal small samples?
 - (i) z-test
 - (ii) F-test
 - (iii) t-test
 - (iv) Chi-square test
6. If the sample size is 30, then the degrees of freedom is
 - (i) 30
 - (ii) 29
 - (iii) 28
 - (iv) 27
7. Analysis of Variance is a statistical method of comparing the
 - (i) SD
 - (ii) Proportion
 - (iii) Means
 - (iv) Variances
8. The most commonly used test to assess agreement among raters is
 - (i) Kendall coefficient
 - (ii) Correlation coefficient
 - (iii) F-ratio
 - (iv) Z-value
9. Which one of the following is not a statistical package?
 - (i) SPSS
 - (ii) R
 - (iii) Python
 - (iv) Stata
10. In SPSS the text data type is denoted as
 - (i) numeric
 - (ii) string
 - (iii) syntax
 - (iv) SAX

Cont...

SECTION - B (35 Marks)Answer **ALL** Questions**ALL** Questions Carry **EQUAL** Marks (5 x 7 = 35)

- 11 a Examine the assumptions and limitations of the chi-square test.
OR
b Bring out the merits and demerits of contingency coefficient.
- 12 a What is Biserial correlation? How is it computed?
OR
b Sketch the regression lines in a scatter diagram.
- 13 a State the importance of score transformation.
OR
b When and where should we try to use parametric or non-parametric tests? Explain.
- 14 a Explain analysis of variance.
OR
b Organize the applications of ANOVA.
- 15 a Explain the kinds of descriptive statistics SPSS provides.
OR
b Summarise test procedures for conducting t statistics in SPSS.

SECTION - C (30 Marks)Answer any **THREE** Questions**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Can chi-square be applied for testing the relationship? Explain.
- 17 The number of candidates passing and failing in two items of a test is given in the following table.

		Item I	
		Pass	Fail
Item II	Pass	80	55
	Fail	20	70
Total		100	125

Compute phi coefficient between these two items.

- 18 Convert the raw scores of the following distribution into T scores

scores	45-49	40-44	35-39	30-34	25-29	20-24	15-19	10-14	5-9
F	1	4	7	8	10	8	6	4	2

- 19 Discuss the various steps involved in application of ANOVA for testing the difference between group.
- 20 Elaborate the assumptions and test procedures of regression in SPSS.

Z-Z-Z

END