## PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

### **BSc DEGREE EXAMINATION DECEMBER 2017**

(Third Semester)

## Branch - PSYCHOLOGY

## **PSYCHOLOGICAL STATISTICS - II**

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks! Answer ALL questions ALL questions carry EQUAL marks

 $(10 \times 2 = 20)$ 

- 1 Statistics.
- 2 Correlated samples.
- 3 Independent variable.
- 4 Curvilinear correlation.
- 5 Variance.
- 6 Randomization.
- 7 Goodness of fit.
- 8 Median test.
- 9 Inter-rater reliability.
- 10 SPSS.

#### **SECTION - B (25 Marks)**

## Answer ALL Questions

- ALL Questions Carry EQUAL Marks (5x5 = 25)
- 11 a Highlight the nature and assumptions of T distribution.

### OR

- b Outline the context of selection of type-I or Type-II error in inference making.
- 12 a Draw a scatter plot for data presented below and interpret.

Stress index:	85	67	54	49	42	36	32	21	20	18	16	14	10	9	6
Health index:	10	15	18	22	30	32	36	41	52	60	65	73	80	82	90
			OI	2											

- b Outline the steps followed for the calculation of simple regression.
- 13 a Highlight the various measures normally adopted to eliminate the extraneous effects of variables.

#### OR

b Explain the context of applying 'Tukey's test'.

14 a What is coefficient of contingency known as? Give an illustration for the calculation of it.

OR

b Explain the meaning of the term: Test of independence of attributes.

- 15 a Explain the process involved in the calculation of split-half reliability. OR
  - b Highlight the advantages and disadvantages of using software based statistical analysis.

# SECTION - C (30 Marks)

Answer any **THREE** Questions **ALL** Questions Carry **EQUAL** Marks (3x10 = 30)

Compute 'C.R' for the data given below and interpret the result.

	Ν	Mean	SD
Group I	50	22.46	3.86
Group II	40	16.12	3.24

List out the various types of correlation and present an illustration for rank order correlation.

Work out one way ANOVA for the information given below.

Group X:	7	8	10	12	7
Group Y :	11	14	14	12	10
Group Z:	14	12	10	16	13

Discuss about the salient features of using Non-parametric test statistics and explain the steps of calculating sign test.

Explain about the various methods of finding out the validity for a newly constructed scale.

Z-Z-Z