PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2019
(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   (1 0 x 2 = 20)

1   **Define Hypothesis.**
2   Differentiate type I and type II error.
3   Mention any 4 advantages of scatter diagram.
4   What is correlation?
5   **Define Randomization.**
       What is replication?
       List out any 4 types of non parametric tests.
       Write any 2 differences of one way ANOVA and two way ANOVA.
       Give any 4 types of validity.
10   What is internal consistency?

SECTION - B (25 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

11 a What is a Universal Hypothesis known as?
                     OR
   b Write the meaning of the term: Confidential Interval.

12 a Following are the marks obtained by five students in two tests. Calculate
       Pearson's Product moment coefficient of correlation and interpret it.
              5   3   6   8   4
              10   12   14   8   10
                     OR
   b Outline the steps in interpreting Regression value.

13 a Explain the meaning of the term "Local Control" in the context of
       experimental design.
                     OR
   b Write a short note on one way ANOVA.

14 a Outline the basic assumptions under which non-parametric tests are used.
                     OR
   b A researcher test the effect of a diet plan on body weight. A sample of 50
       people is selected. The observation made at the start of the diet and one
       month later revealed that 37 people lost weight, 12 gained and one had no
       change in weight. Test whether the treatment leads to gain in weight.

15 a Explain the procedure of finding out the internal consistency reliability.
                     OR
   b Highlight the salient features of using software packages for data analysis.

SECTION - C (30 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 1 0 = 30)

i £ Rrincr nnt the nature and assumntion of 'f distribution and find out 'f

17 Compute ANOVA for the following data and interpret

Treatment -1	Treatment - II	Treatment - III	Treatment - IV
8	6~	9	12
10	9	10	13
9	8	8	10
10	8	11	11
11	7	12	11

18 List and explain the steps to compute Two-way ANOVA with an example.

19 A random sample of 100 UG psychology applicants are selected for a research, and find that they are distributed across five fields of study in the following way. Cognitive Psychology, Sports Psychology, Indian Psychology, Clinical Psychology and Applied Psychology. The total observed frequency are : 40, 35, 5, 10 and 100. Are all field of psychology equally popular, as far as psychology applications are connected? Or do some fields attract more applications than others? Discuss.

20 Discuss about the various types of establishing validity of a Psychological tool.

Z-Z-Z   **END**