



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fifth Semester – Spring 2023

Roll No. ....

Paper: Statistics in Psychology

Course Code: APSY-357

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Answer the following short questions: (10x3=30)**

1. Define scales of measurement with the help of examples.
2. What are descriptive statistics. Write down names of analyses used to describe and summarize data.
3. Define median. Write down formulas to find median from ungrouped and grouped data.
4. If scores on a test are normally distributed with mean = 300 and standard deviation = 50.5, what is the z score of a student whose marks in the test are 360?
5. What are the differences between One way and Two way ANOVA?
6. Write down steps in construction of grouped frequency distribution.
7. Define normal distribution? Write down its properties.
8. What is the difference between discrete and continuous data? Explain, out of discrete and continuous, which data can be graphically presented by histogram and polygon.
9. Define critical region. Describe critical region for one tailed and two tailed test.
10. What are the advantages of graphic representation of data?

**Q.2. Solve the following questions. (3x10=30)**

1. Find regression coefficient (b).

X	4	6	9	5	8	9
Y	3	15	6	7	11	13

2. The following table shows number of students present on days of the week. Run chi square test of goodness of fit to find if there is any significant difference (at  $\alpha=.05$ ) in number of students present on any particular day.

Day of the week	Monday	Tuesday	Wednesday	Thursday	Friday
Number of students present	125	88	85	94	108

3. A study was conducted to find if there are any gender differences in level of creativity. The data of men and women on creativity are below. Find if there are any gender differences in level of creativity at  $\alpha = .01$ .

Gender	n	Mean	SD
Men	10	15.25	4.7
Women	10	11.75	3.3