



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / First Semester – Spring 2022

Paper: Elementary Statistics-I

Course Code: STAT-101-A

Roll No. ....

Time: 3 Hrs.

Marks: 60

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

Q.1. Answer the following short questions:

(6x5=30)

- i) Differentiate between POPULATION and SAMPLE.
- ii) Explain: RELATIVE FREQUENCY DISTRIBUTION, PERCENTAGE FREQUENCY DISTRIBUTION
- iii) Write down properties of ARITHMETIC MEAN.
- iv) Write down properties of VARIANCE.
- v) Explain: NOMINAL and ORDINAL scales of measurement.
- vi) What is Index number also list the steps involved in construction of Index number.

Solve the following questions.

(3x10=30)

Q.2. Given below is the distribution of weekly income (to the nearest rupee) of 100 households in a locality A.

Ages(Years)	15 — 19	20 — 24	25 — 29	30 — 34	35 — 39	40 — 44	45 — 49	50 — 54
<i>f</i>	29	176	208	173	82	40	15	3

Calculate: Skewness by Bowley's formula and interpret the results.

Q.3. Given below is the distribution of weekly income (to the nearest rupee) of 100 households in a locality A.

Income	35 — 39	40 — 44	45 — 49	50 — 54	55 — 59	60 — 64	65 — 69
<i>f</i>	13	15	17	28	12	10	5

Calculate: a) Arithmetic Mean b) Variance

Q.4.

Compute Fisher's price index number of 1976 with 1961 as base form the following data.

Commodity	Quantity(units)		Value(Rs.)	
	1961	1976	1961	1976
A	100	150	600	1200
B	80	100	400	700
C	60	72	180	432
D	30	33	450	363