



Q1\ A Just count the following (فقط عدد ما يلي) (نهمانهی خوار هوه تهنها بژمیره) (10 Marks)

- 1- Sources of Collecting the data
- 2- Types of Random sample
- 3- Types of population

B What are the differences between Qualitative variable and Quantitative variable?
(جیاوازی چیه له نیوان گۆراوی چهندی و گۆراوی جۆری (ما الفرق بین المتغیرات النوعية و المتغیرات الكمية)

Q2\ A/ Select (4) students out of (24) students by use systematic sampling. (20 Marks)

B/ From the following data:

$$x_i = 2, 4, 5, 4$$

Find

1- $\sum_{i=1}^4 x_i$ 2- $\sum_{i=1}^3 x_i^2$ 3- $\sum_{i=1}^2 \sqrt{x_i}$

Q3 From the following frequency distribution table (20 Marks)

| Classes | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 |
|---------|-----|-------|-------|-------|-------|
| fi | 3 | 5 | 7 | 3 | 2 |

- Find:**
1. Center of class (midpoint)?
 2. Relative Frequency distribution?
 3. Ascending Cumulative Frequency distribution (ACF)?

Q4 Draw a **frequency histogram** to illustrate the following frequency distribution.
(10 Marks)

| Classes | 2-5 | 5-8 | 8-11 | 11-14 | 14-17 |
|---------|-----|-----|------|-------|-------|
| fi | 5 | 7 | 3 | 4 | 1 |

Good Luck