



Final Exam- Second Semester: First Trial 2023- 2024

**Q1** Find **Median** for the following frequency distribution: (15 marks)

Classes	20-30	30-40	40-50	50-60	60-70	70-80	80-90
<b>fi</b>	5	9	10	11	9	10	6

**Q2** **A** (10 marks)

If  $Y_i = X_i + b$  where  $b$  is a constant,  
then prove that  $S_y^2 = S_x^2$

**Q2** **B** Find **variance** of the following data: (10 marks)

**6, 5, 9, 10, 15**

**Q3** (10 marks)

- 1- Why might the range not be the best estimate of variability?
- 2- If the **Mean** of **four** values is (**6**) and three of values are (**5, 4, 10**) find the fourth value.

**Q4** (15 marks)

Calculate part value ( $Q_2, D_7, P_{20}$ )  
(4, 6, 3, 10, 2, 13, 15, 11, 9, 5)

**Good luck**