

## Statistics - ICS Part 2 Statistics English Medium Chapter 4 Short Questions Preparation

Q1.

**Ans 1:** Option (ii) is true.

Q2. What is a coefficient of correlation ? For what purpose it is used ?

**Ans 1:** The coefficient of correlation is a measure designed to give the information about the nature and strength of the relationship existing between the two variables.

Q3. The two regression lines Y on X and X on Y intersect each other at a specific point in the rectangular coordinate system. What is that ?

**Ans 1:**

Q4. if we measure the correlation between weights (in kg) and height (in cm) then what would be the unit of coefficient of correlation ?

- i. Kg per cm or
- ii. Cm per Kg
- ii. Non of these

**Ans 1:** Coefficient of correlation is independent of units of measurement. It is a pure real number lying in between -1 and + 1. Option (iii) is true.

Q5. Is it possible that both regression by equal ?

**Ans 1:** For a specific problem they may have equal and identical value. But it is not possible for all the situations.

Q6. Is it possible that both regression coefficients be equal ?

**Ans 1:** No. It is not possible at all. They have always the same sign.

Q7. "Regression coefficients are independent of origin". What does it mean ?

**Ans 1:** It means that addition or subtraction of a constant to the values of variables have no effect on the values of regression coefficients.

Q8. Is it true that a change in origin scale of the variables affects the value of correlation coefficient ?

**Ans 1:** Coefficient of correlation is independent of the change in the origin and scale.

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Q9. What do we mean by nature of the relationship ?

**Ans 1:** By nature of the relationship we mean that whether the relationship is linear or curvilinear; positive or negative etc.

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Q10. Which one is true for coefficient of correlation ?

**Ans 1:** By nature of the relationship we mean that whether the relationship is linear or curvilinear; positive or negative etc.

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