

# Kerala Board Class 12, 2026 Statistics Question Paper

Time Allowed :3 Hours

Maximum Marks :70

Total questions :38

## General Instructions

**Read the following instructions very carefully and strictly follow them:**

1. The paper is divided into Section A and Section B.
2. Section A includes objective-type questions.
3. All questions in Section A are compulsory.
4. Section B includes short answer, and long answer type questions.
5. Answers must be written legibly within the word limit.
6. Use of unfair means or electronic devices is prohibited.
7. Follow the correct format and instructions for each section.

## Section - A

**1. The consumption of fuel and the distance covered by a vehicle is an example of \_\_\_\_\_ correlation.**

- (A) Positive
- (B) Negative
- (C) Zero
- (D) Can't say

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**2. The number of petals in a flower is an example of \_\_\_\_\_ random variable.**

- (A) Qualitative
- (B) Discrete
- (C) Continuous

(D) Normal

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**3.  $E(X) = 4$  then  $E(X - 2) =$  \_\_\_\_\_**

- (A) 1
  - (B) 2
  - (C) 0
  - (D) 4
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**4. If  $b_{xy} = -0.3$  and  $b_{yx} = -0.6$ , then the value of correlation coefficient is \_\_\_\_\_.**

- (A) -0.18
  - (B) 0.18
  - (C) -0.36
  - (D) 0.36
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**5. Any control chart has \_\_\_\_\_ number of control limits.**

- (A) 2
  - (B) 1
  - (C) 4
  - (D) 5
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**6. A good estimator should be \_\_\_\_\_.**

- (A) Consistent
  - (B) Sufficient
  - (C) Efficient
  - (D) All of the above
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**7. Which among the following is an example of +ve correlation?**

- (A) Distance and Intensity of light
  - (B) Pressure and volume
  - (C) Height and distance
  - (D) Income and expenditure
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**8. Regression analysis is a mathematical measure of the \_\_\_\_\_ of relationship between two or more variables.**

- (A) Size
  - (B) Nature
  - (C) Degree
  - (D) Colour
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**9. The time taken by a student to reach the school is an example of \_\_\_\_\_ variable.**

- (A) Qualitative
  - (B) Discrete
  - (C) Continuous
  - (D) Normal
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**10. The ratio of two independent chi-square variables is \_\_\_\_\_.**

- (A) Normal
  - (B) t-statistic
  - (C) Chi-square statistic
  - (D) F-statistic
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**Section - B**

**11.  $X+2Y=5$  and  $2X+3Y=8$ . Find the Mean of X and Y.**

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**12. In bivariate data following results were obtained.**

**Mean value of X = 53, Mean value of Y = 27,  $b_{yx} = -1.5$ ,  $b_{xy} = 0.2$ . Find the regression equation of X on Y and Y on X.**

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**13. Find the derivative of  $y = x^6 + 48x^3 + 24x - 16$  with respect to  $x$ .**

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**14. Write the important assumptions of ANOVA.**

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**15. A random sample from a population is given below. 35, 45, 40, 42, 39, 55 and 63. Obtain the moment estimator of the population mean.**

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**16. A random sample of 100 is taken from a population. The mean and standard deviation are respectively 76 and 12. Obtain a 99% confidence interval for the mean of the population.**

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**17. Equations of two lines of regression are  $2x - 5y + 33 = 0$  and  $3x - 9y - 108 = 0$ . Which one is the regression line of  $y$  on  $x$ ?**

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**18. In a distribution exactly normal, 7% of the items are under 35 and 89% are under 63. Find the mean and standard deviation of the distribution.**

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