

JK 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. Variance of Poisson distribution is 4, its mean is:

- (A) 2
- (B) 4
- (C) 1
- (D) $\frac{1}{2}$

2. If $P(X) = 0.15$, $P(Y) = 0.25$, $P(X \cap Y) = 0.10$, then $P(X \cup Y)$ is

- (A) 0.10
- (B) 0.30
- (C) 0.40
- (D) 0.20

3. For Poisson distribution

- (i) Mean $>$ variance
 - (ii) Mean = variance
 - (iii) Mean $<$ variance
 - (iv) None of the above
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4. When the correlation coefficient $r = 0$, then the two regression lines:

- (A) Are perpendicular to each other
 - (B) Coincide
 - (C) Are parallel to each other
 - (D) None of these
-

5. The two lines of regression intersect at a point:

- (A) (X, Y)
 - (B) (\bar{X}, \bar{Y})
 - (C) $(0, 0)$
 - (D) None of these
-

6. When the correlation coefficient $r = 0$, then the two regression lines:

- (A) Are perpendicular to each other
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7. The two lines of regression intersect at a point:

- (A) (X, Y)

- (B) (\bar{X}, \bar{Y})
(C) (0, 0)
(D) None of these
-

Section - B

8. A card is drawn at random from a well shuffled pack of 52 cards. What is the probability that it is:

- (i) an ace card**
(ii) a diamond card.
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9. Write down the probability mass function of Binomial distribution.

10. If $N = 600$, $A = 50$, $B = 70$, $AB = 30$. Find all missing frequencies.

11. What do you understand by consistency of data?

12. What is cyclic variation in time series?

13. Define feasible region in LPP.

14. If θ is the angle between two regression lines, deduce the expression for $\tan \theta$. Find θ when $r = 0$ and $r = 1$.

15. Prove that regression coefficients are independent upon change of origin but not scale.
