JK Board Class 12, 2026 Statistics Question Paper

Time Allowed :3 Hours	**Maximum Marks :**70	**Total questions :**38

Section - A

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

(A) 2

(B) 4

(C) 1

(D) $\frac{1}{2}$

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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

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

(B) Coincide

(C) Are parallel to each other

(D) None of these

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.

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

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11. What do you understand by consistency of data?

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12. What is cyclic variation in time series?

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13. Define feasible region in LPP.

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

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