

(Math. Stat. I)

Q # 1 :- (2) → Ref. 2.7, pp 2-9, Gupta and Kapoor.

(ii) (3.4)(iv), pp. 3.9 Gupta and Kapoor.

iii) Ref. $\frac{5.3.1}{pp 5-5}$, Gupta and Kapoor.

iv) p.r. if X and Y are independent random variables, then $E(XY) = E(X)E(Y)$.

(v) Ref 7.3, pp 7.9, Gupta and Kapoor.

(vi) Def (8.4), pp. 8.4, and Ex. 8.1, pp. 8.5.
Gupta and Kapoor.

vii) Let X be a random variable over the range $[1, n]$, then

$$P(X=n) = \begin{cases} \frac{1}{n} & \text{for } n=1, 2, \dots, n \\ 0, & \text{otherwise.} \end{cases}$$

viii)

$$p = 1 - \frac{6 \sum_{i=1}^n d_i^2}{n(n^2-1)}$$

Q#12:- Use shortcut formulas to obtain
mean and median of the given distribution
and then use $\text{Mode} = 3 \text{ Median} - 2 \text{ Mean}$.

Q#13:- (a) Explain about deviations by example.

(b) Use this formula:

$$\sigma = \sqrt{\frac{1}{N} \sum f_i (x_i - \bar{x})^2}$$

Q#14:- Ref. 3.36, pp. 3.41, Gupta and Kapoor.

Q#16:- 5.38 pp. 5.46, Gupta and Kapoor.

Q#17:- 6.16, pp. 6.18, —————

Q#18:- 10.2, pp. 10.8 Gupta and Kapoor.

Q#15:- 5.10, pp. 5.15 Gupta and Kapoor.
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