

BBA-1st Year (Business Statistics)
Important Questions

- ① Write short note on the Frequency Distribution.
- ② Explain Cumulative Frequency Distribution.
- ③ Explain various types of 'Skewness' and 'kurtosis' in detail. Point out their role in analysing the frequency distribution.
- ④ Calculate median and mode of the given data. Using them find arithmetic mean.

Marks (Less than):	10	20	30	40	50	60
No. of Students :	8	23	45	65	75	80

- ⑤ Calculate Karl Pearson's coefficient of skewness:

Variable :	70-80	60-70	50-60	40-50	30-40	20-30	10-20
Frequency:	11	12	30	35	21	11	6

Variable : 0-10
Frequency : 5

- ⑥ Explain the characteristics / Properties of a good measure of variation / central tendency.
- ⑦ Explain the term interquartile range and quartile deviation.
- ⑧ What are the various measures of variation?

⑨ Compute the mean and mode for the following sample data:

Class interval:	10-under 15	15-under 20	20-under 25	25-under 30
Frequency:	6	22	35	29

Class interval:	30-under 35	35-under 40	40-under 45	45-under 50
Frequency:	16	8	4	2

⑩ Find the value of coefficient of correlation r , for the following data:

X :	4	6	7	11	14	17	21
Y :	18	12	13	8	7	7	4

⑪ Two lines of regression are given by

$$8X - 10Y + 66 = 0 \quad \text{and} \quad 40X - 18Y = 214.$$

Find (i) the mean values of X and Y .

(ii) the coefficient of correlation between X & Y .

⑫ What is meant by Correlation? What is its significance?

⑬ Explain the difference between correlation and regression.

⑭ Calculate the Pearson's Coefficient of Correlation from the following data taking 44 and 26 as the assumed mean of X and Y respectively.

X :	57	42	40	38	42	45	42	44	40	46	44	43
Y :	10	26	30	41	29	27	27	19	18	19	31	29

- (15) What is Baye's theorem?
- (16) If a binomial experiment has seven trials in which the probability of success (P) is 0.5 and the probability of failure is (q) 0.5, compute each of the following probabilities:
- (a) P (exactly five successes)
 - (b) P (at least five successes)
 - (c) P (at most five successes)
- (17) What do you mean by probability? State General Laws of probability.
- (18) Machines, A, B and C all produce the same product. Of all the units produced, machine A produces 60%, machine B produces 30% and machine C produces 10%. If the machines produce 5%, 8% and 10% defective goods respectively. What is the probability that a randomly selected good, if found defective, comes from machine A? From machine C?
- (19) A box contains 3 red and 7 white balls. One ball is drawn at random and in its place a ball of the other colour is put in the box. Now one ball is drawn at random from the box. Find the probability that it is red.
- (20) Define Binomial, Poisson and Normal Distributions with their applications.

- ②① Write a short note on Sampling and Non-sampling errors.
- ②② Explain Random Sampling, Purposive Sampling and Stratified Sampling.
- ②③ What do you mean by null hypothesis and alternate hypothesis? How do they relate to Type I and Type II errors? Discuss.
- ②④ Discuss any two large sample tests in detail with their concepts, applicability and limitations.
- ②⑤ Discuss the concept of one-tailed test and two-tailed tests.