



Class: XII
Time Allowed: 15 minutes
Q1:

MODEL PAPER EXAMINATION 2025
SUBJECT: BUSINESS STATISTICS
(SECTION “A”)

Marks: 10

Note: Attempt **ALL** questions from this section. Each question carries **ONE** mark

1. Any quantity calculated from a _____ is called statistics.
A. Population B. Sample C. Both A & B D. None of these
2. The distance covered by a car is a _____ variable.
A. Qualitative B. Discrete C. Continuous D. All three correct.
3. If width of each class interval = 20 and the No. of classes = 4, then Range = _____
A. 80 B. 5 C. 0.2 D. None of these
4. The sub-divisions of a pie diagram are called _____.
A. Parameters B. Bars C. Frequency D. Sectors
5. For the following numbers: 8, 10, 12, x, 6, the mean is 10. What is the value of x?
A. 6 B. 14 C. 12 D. 8
6. When Mean>Median>Mode the distribution is _____.
A. Symmetrical B. Positively skewed C. Negatively skewed D. None of these
7. In _____ method of construction of price index numbers, the base period varies from year to year.
A. Fixed Base B. Chain Base C. Constant Base D. Variable Base
8. If the price of a commodity, for the year 2021 is Rs. 40 and for the year 2022 is 50, then the link relative for the year 2022 is _____.
A. 100 B. 95 C. 125 D. 85
9. If a dice used in a board game is fair, that means the probability of each number is _____.
A. 1 B. $\frac{1}{2}$ C. $\frac{1}{6}$ D. 100%
10. _____ is a set of all possible results of an experiment.
A. Outcome B. Sample space C. Permutations D. Combinations

END OF SECTION A

Class: XII
Time: 1 hours 45 minutes

MODEL PAPER EXAMINATION 2025
SUBJECT: BUSINESS STATISTICS (SECTION “B” AND SECTION “C”) SECTION “B” (SHORT ANSWER QUESTIONS)

Total Marks 40
Marks 20

Q2. Answer any **FIVE** questions. All Questions carry **FOUR** marks:

1. Describe the methods of collection of primary data.
2. A survey was conducted by a school administration to find out the opinions of 20 teachers regarding the quality of food being offered at the Canteen. The quality of food is rated on a scale of Good (G), Satisfactory (S), Bad (B). The collected data is as under:

G	S	S	G	G	G	S	G	S	G
B	G	B	S	G	B	S	S	G	B

Construct a Relative frequency distribution table.

3. For the following frequency distribution:

C.I	2-4	5-7	8-10	11-13	14-16	Total
f	2	6	10	6	2	26

- a) Draw a frequency curve
- b) Name the shape of the frequency curve

4. If Mode = 10 and Mean = 17.5 in a moderately skewed distribution, find the approximate value of Median using the empirical formula.
5. The following table gives average annual prices of 1 Kg Wheat during the years 2014-2023

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Price	400	410	425	450	475	490	500	525	550	600

Calculate Link relatives.



6. From the data given below, calculate the index number of prices for all three years with reference to 2020 as the base year, using Simple Aggregative Method.
- | Commodity | 2020 | 2021 | 2022 | 2023 |
|-----------|------|------|------|------|
| X | 500 | 510 | 520 | 530 |
| Y | 250 | 300 | 350 | 400 |
| Z | 100 | 200 | 300 | 400 |
7. Three coins are tossed together. Find:
- i. The sample space.
 - ii. The probability of getting at most 1 Head.
 - iii. The probability of getting at least 2 Heads.
8. From a group of 5 men and 10 women, a team of 2 men and 3 women are to be selected. In how many ways can this be achieved?

SECTION “C” (DETAILED ANSWER QUESTIONS) Marks 20

Q3. Attempt any **TWO** questions from the following. All questions carry **TEN** Marks

1. For the following data:

Commodity	2019	2020	2021	2022	2023
X	5	6	7	8	9
Y	10	12	14	16	18
Z	15	20	25	30	35

- i. Calculate Link relatives of each commodity.
 - ii. Calculate mean of the link relatives.
 - iii. Find chain indices.
2. Compute Mean, Median and Mode of the following grouped data:
- | Income (Rs/hr.) | 100-190 | 200-290 | 300-390 | 400-490 | 500-590 | 600-690 | 700-790 |
|------------------|---------|---------|---------|---------|---------|---------|---------|
| No. of Employees | 12 | 15 | 20 | 26 | 20 | 15 | 12 |
3. **Probability**
- i. A bag contains 6 green and 8 blue balls. A ball is drawn at random from the bag, A second ball is then drawn. Find the probability that the first ball is green and the second is blue in the following cases:
 - a. Assuming that the ball drawn is replaced.
 - b. Assuming that the ball drawn is not replaced.
 - ii. A dice is rolled once. What is the probability of getting:
 - a. a total of 4 or 6.
 - b. either a number less than 4 or an odd number.