**Section-I**

***State whether the following statements are True or False.***

1. Mean of the values 5, 4, 0, 3 is 3.
2. Half of the observations in a data set are greater than the median.
3. The total number of phone calls in a day, is the example of continuous data.
4. One or more outliers do not affect the value of the mean.

1. If mode= median= mean, then the distribution is not symmetric.
2. Let $P\left(A\right)=0.15, P(B/A) =$ 0.4, if A and B are independent, then P$(A and B)$=0.60.

**Section-II**

 **(Multiple Choice Questions)**

1. A researcher takes a sample of 120 employees of a company, the average age of company’s employees is
2. a statistic.
3. a parameter.
4. the median.
5. a population.
6. The level of measurement of Student’s grades, A,B, or C in a test is
7. Nominal
8. Ratio
9. Interval
10. Ordinal
11. The difference between the largest and the smallest data values is called
12. Variance
13. Class boundary
14. Range
15. None of the above answers is correct

1. A die with 6 faces is rolled. What is the probability that the number is greater than 4?
2. 1/6
3. 2/6
4. 3/6
5. 4/6
6. A distribution that has a long left tail is called:
7. Positive Skewed
8. Negative Skewed
9. Symmetric
10. both a and b
11. Find the original data from the stem and leaf plot

Stem Leaves

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 2 | 2 | 3 |  |  |  |
| 3 | 2 | 3 | 4 |  |  |
| 4 | 3 | 4 | 5 |  |  |

1. 22,23,32,32,34,43,44,45
2. 22,22,32,33,34,44,44,45
3. 22,22,32,33,34,43,44,45
4. 22,23,32,33,34,43,44,45

**Part-II (Multiple Choice Questions)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| MCQ | 1 | 2 | 3 | 4 | 5 | 6 |
| Answers |  |  |  |  |  |  |

**Section –III**

**Answer the following Essay Type Questions**

1. Answer the following questions-
2. Two coins are tossed, find the probability that one head only is obtained.
3. A card is drawn at random from a deck of cards. Find the probability of getting the King of hearts.
4. Two dice with 6 faces are rolled, find the probability that the sum is equal to 5.
5. Find the mean and standard deviation of the following sample data:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Marks(x) | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 |
| Frequency(f) | 3 | 3 | 4 | 14 | 7 | 4 | 3 | 4 |

1. Answer the following questions:
2. 29 machines were observed, and the number of defective parts was recorded for each machine. The resulting data is

1, 3, 2, 1, 1, 4, 2, 4, 1, 1, 1, 3, 1, 1, 1, 1, 2, 2, 1, 1, 4, 1, 1, 2, 1, 1, 1, 1, 3.

Construct a relative frequency distribution from the above data.

1. Construct a frequency histogram of the following frequency distribution

|  |  |
| --- | --- |
| Class Interval | Frequencies |
| 50 - 60  |  13 |
| 60 - 70  |  27 |
| 70 - 80  |  43 |
| 80 - 90 | 31 |
| 90 - 100  |  9 |