

B.Com DEGREE EXAMINATION, EVEN SEMESTER 2021**I Year II Semester****Business Statistics and Operations Research - II**

Max Marks: 25

Answer any **Five** questions (5 * 5 = 25) Marks

1. A bag contains 30 balls numbered from 1 to 30. One ball is drawn at random. Find the probability that the number of the ball drawn will be a multiple of
a) 5 or 7 b) 3 or 7

2. Explain the different type of sampling technique.

3. To following data is collected on two characteristics:

| | Smokers | Non – Smokers |
|------------|---------|---------------|
| Literate | 83 | 57 |
| Illiterate | 45 | 68 |

Based on this can you say that there is no relation between the habit of smoking and literacy.

4. The mean yield for one -acre plot is 662 kilos with a standard deviation 32 kilos. Assuming normal distribution, how many one-acres in a batch of 1000 plots would you expect to have yield?
a) over 700 kilos b) below 650 kilos.
5. Solve the following assignment problem

| | W | X | Y | Z |
|---|----|----|----|----|
| A | 33 | 40 | 43 | 32 |
| B | 45 | 28 | 31 | 23 |
| C | 42 | 29 | 36 | 29 |

6. Draw the network and identify the critical path

| activity | 1-2 | 1-3 | 2-4 | 2-5 | 3-4 | 4-5 |
|----------|-----|-----|-----|-----|-----|-----|
| duration | 8 | 4 | 10 | 2 | 5 | 3 |

7. Explain the difference between CPM and PERT method.