1. Mr. Pandey lives in Lucknow, UP the reading of electric metre of his house is found to be 5678 units, if the previous month's reading was 4803 units and connection load is 4 KW, calculate his electricity bill for that month. Tariff Plan is given below

Energy charges

Number of units	0-150	151-300	301-500	>500
Price per unit in ₹	₹ 5.7	₹6.1	₹6.5	₹ 7.5

Fixed charge ₹150 per Kw/month
Energy tax is 5% of tariff rates.
Surcharges are ₹0.26 per unit.

2. Mr. Dutt lives in Mumbai and consumes 84 SCM gas in 60 days. Calculate bill amount (vat 12.5%)

Gas charge

36 SCM	>36 SCM
₹ 29.6	₹36.2

3. A bag contains 2 red and 3 black balls. What is the sample space when the experiment consists of drawing?
   i. 1 ball   ii. 2 balls (assuming that order is not important)

4. A coin is tossed three times. Consider the following events:
   A: No tail appears   B: Exactly one head appears
   C: At least two heads appears   D: Exactly one head appears
   Do they form a set of mutually exclusive and exhaustive events?

5. In a single throw of two dice what is the probability of getting
   i. A total of 8   ii. At least one jack
   iii. Doublets   iv. The sum as a prime number

6. A committee of 5 persons in a table constituted from a group of 6 gents and 8 ladies. If the selection is made randomly, find the probability that there are 3 ladies and 2 gents in the committee.

7. Six boys and six girls set in a row. Find the probability that the boys and girls sit alternatively.

8. There are three mutually exclusive and exhaustive events E_1, E_2 and E_3. The odds are 8:3 against E_1 and 2:5 in favour of E_2. Find the odds against E_3.

9. Compute P(A/B) when P(A)=1/5, P(B)=2/5, P(A∪B)3/5.

10. In a school there are 1000 students; out of which 430 are girls. It is known that out of 430, 10% of the girls study in class XII what is the probability that a student chosen randomly studies in class XII given that the chosen students is girl.