VERY SHORT ANSWER TYPE QUESTIONS

1. Fill in the Blanks

(a) The probability of an event is greater than or equal to ..... and is less than or equal to ..... **[NCERT]**

(b) The probability of an impossible event is .....

(c) The probability of an event that is certain to happen is ..... and such an event is called ..... **[NCERT]**

(d) The sum of probabilities of all the elementary events of an experiment is ..... **[NCERT]**

(e) Probability of an event E + probability of the event not E is equal to ..... **[NCERT]**

(f) If probability of winning a game is $\frac{4}{9}$, then the probability of its losing is .....

(g) If coin is tossed twice, then the number of possible outcomes is .....

(h) If a die is thrown twice, then the number of possible outcomes is .....

2. State True/False

(a) The probability of an event can be negative.

(b) The probability of an event is greater than 1.

3. Multiple Choice Questions

(i) Which of the following cannot be the probability of an event? **[NCERT]**

(A) 0.7 (B) $\frac{2}{3}$ (C) – 1.5 (D) 15%

(ii) Which of the following can be the probability of an event? **[NCERT Exemplar]**

(A) – 0.04 (B) 1.004 (C) $\frac{18}{23}$ (D) $\frac{8}{7}$

(iii) An event is very unlikely to happen, its probability is closest to **[NCERT Exemplar]**

(A) 0.0001 (B) 0.001 (C) 0.01 (D) 0.1

(iv) Out of one digit prime numbers, one number is selected at random. The probability of selecting an even number is:

(A) $\frac{1}{2}$ (B) $\frac{1}{4}$ (C) $\frac{4}{9}$ (D) $\frac{2}{5}$

(v) When a die is thrown, the probability of getting an odd number less than 3 is:

(A) $\frac{1}{6}$ (B) $\frac{1}{3}$ (C) $\frac{1}{2}$ (D) 0

(vi) Rashmi has a die whose six faces show the letters as given below:

A	B	C	D	A	C

If she throws the die once, then the probability of getting C is:

(A) $\frac{1}{3}$ (B) $\frac{1}{4}$ (C) $\frac{1}{5}$ (D) $\frac{1}{6}$

(vii) A card is drawn from a well shuffled pack of 52 playing cards. The event E is that the card drawn is not a face card. The number of outcomes favourable to the event E is:

(A) 51 (B) 40 (C) 36 (D) 12

4. Choose the correct answer from the given four options

(i) If the probability of an even is 'p' then probability of its complementary event will be:

(A) p – 1 (B) p (C) 1 – p (D) $1-\frac{1}{p}$

(ii) In a family of 3 children, the probability of having atleast one boy is: **[CBSE 2014]**

(A) $\frac{7}{8}$ (B) $\frac{1}{8}$ (C) $\frac{5}{8}$ (D) $\frac{3}{4}$

(iii) The probability of a number selected at random from the numbers 1, 2, 3, ... 15 is a multiple of 4 is: **(CBSE 2020)**

(A) $\frac{4}{15}$ (B) $\frac{2}{15}$ (C) $\frac{1}{15}$ (D) $\frac{1}{5}$

(iv) The probability that a non-leap year selected at random will contains 53 Mondays is:

(A) $\frac{1}{7}$ (B) $\frac{2}{7}$ (C) $\frac{3}{7}$ (D) $\frac{5}{7}$

(v) A bag contains 6 red and 5 blue balls. One ball is drawn at random. The probability that the ball is blue is:

(A) $\frac{2}{11}$ (B) $\frac{5}{6}$ (C) $\frac{5}{11}$ (D) $\frac{6}{11}$

(vi) One alphabet is chosen from the word MATHEMATICS. The probability of getting a vowel is:

(A) $\frac{6}{11}$ (B) $\frac{5}{11}$ (C) $\frac{3}{11}$ (D) $\frac{4}{11}$

(vii) Two coins are tossed simultaneously. The probability of getting at most one head is

(A) $\frac{1}{4}$ (B) $\frac{1}{2}$ (C) $\frac{2}{3}$ (D) $\frac{3}{4}$

5. A card is drawn at random from a pack of 52 playing cards. Find the probability that the card drawn is neither an ace nor a king.

6. Out of 250 bulbs in a box, 35 bulbs are defective. One bulb is taken out at random from the box. Find the probability that the drawn bulb is not defective.

7. Non Occurance of any event is 3:4. What is the probability of Occurance of this event?

8. If 29 is removed from (1, 4, 9, 16, 25, 29), then find the probability of getting a prime number.

9. A card is drawn at random from a deck of playing cards. Find the probability of getting a face card.

10. In 1000 lottery tickets, there are 5 prize winning tickets. Find the probability of winning a prize if a person buys one ticket.

11. One card is drawn at random from a pack of cards. Find the probability that it is a black king. **(CBSE 2020)**

12. A die is thrown once. Find the probability of getting a perfect square.

13. Two dice are rolled simultaneously. Find the probability that the sum of the two numbers appearing on the top is more than and equal to 10.

14. Find the probability of multiples of 7 in 1, 2, 3, ...,33, 34, 35.

15. If a pair of dice is thrown once, then what is the probability of getting a sum of 8? **(CBSE 2020)**

16. A letter of English alphabet is chosen at random. Determine the probability that chosen letter is a consonant. **(CBSE 2020)**

17. If the probability of winning a game is 0.07, what is the probability of losing it? **(CBSE 2020)**

SHORT ANSWER TYPE QUESTIONS-I

18. A card is drawn at random from a well shuffled pack of 52 playing cards. Find probability of getting neither a red card nor a queen. **[CBSE 2016]**

19. Two different dice are rolled together. Find the probability

(a) of getting a doublet,

(b) of getting a sum of 10, of the numbers on the two dice. **[CBSE 2018]**

20. A box contains 12 balls of which some are red in colour. If 6 more red balls are put in the box and a ball is drawn at random, the probability of drawing a red ball doubles than what it was before. Find the number of red balls in the box. **[CBSE 2018]**

21. An integer is chosen random between 1 and 100. Find the probability that (i) it is divisible by 8, (ii) Not divisible by 8. **[CBSE 2018]**

22. Three different coins are tossed together. Find the probability of getting (i) exactly two heads, (ii) at least two heads.

23. Cards marked with number 3, 4, 5, ... 50 are placed in a box and mixed thoroughly. A card is drawn at random from the box. Find the probability that the selected cards bears a perfect square number. **[CBSE 2016]**

24. A bag contains 5 red balls and some blue balls. If the probability of drawing a blue ball at random from the bag is three times that of a red ball, find the number of blue balls in the bag. **(CBSE 2020)**

25. Two different dice are thrown together, find the probability that the sum of the numbers appeared is less than 5. **(CBSE 2020)**

26. Find the probability that 5 sundays occurs in the month of November of a randomly selected year. **(CBSE 2020)**

27. In a family of three children. Find the probability of having at least two boys. **(CBSE 2020)**

28. Two dice are thrown at the same time. Find the probability of getting different numbers on the two dice. **(CBSE 2020)**

29. If a number x is chosen at random from the numbers –3, –2, –1, 0, 1, 2, 3. What is probability that $x^2 \leq 4$? **(CBSE 2020)**

SHORT ANSWER TYPE QUESTIONS-II

30. A number x is selected at random from the numbers 1, 2, 3 and 4. Another number y is selected at random from the numbers 1, 4, 9 and 16. Find the probability that the product of x and y is less than 16. **[CBSE 2016]**

31. In a single throw of a pair of different dice, what is the probability of getting
(a) a prime number on each dice,
(b) a total of 9 or 11? **[CBSE 2016]**

32. A bag contains 15 white and some black balls. If the probability of drawing a black ball from the bag is thrice that of drawing a white ball, find the number of black balls in the bag. **[CBSE 2017]**

33. Two dice are rolled once. Find the probability of getting such numbers on the two dice,

(a) whose product is 12.

(b) Sum of numbers on the two dice is atmost 5.

34. There are hundred cards in a bag on which numbers from 1 to 100 are written. A card is taken out from the bag at random. Find the probability that the number on the selected card. **[CBSE 2016]**

(a) is divisible by 9 and is a perfect square.

(b) is a prime number greater than 80.

35. In a lottery, there are 10 prizes and 25 are empty. Find the probability of getting a prize. Also verify $P(E) + P(\overline{E}) = 1$ for this event. **[CBSE 2020]**

36. $P(\text{winning}) = \frac{x}{12}$, $P(\text{Losing}) = \frac{1}{3}$. Find x.

LONG ANSWER TYPE QUESTIONS

37. Cards marked with numbers 3, 4, 5, ...,50 are placed in a box and mixed thoroughly. One card is drawn at random from the box, find the probability that the number on the drawn card is

(i) divisible by 7 (ii) a two digit number.

38. A bag contains 5 white balls, 7 red balls, 4 black balls and 2 blue balls. One ball is drawn at random from the bag. Find the probability that the balls drawn is

(i) White or blue (ii) red or black

(iii) not white (iv) neither white nor black

39. The king, queen and jack of diamonds are removed from a pack of 52 playing cards and the pack is well shuffled. A card is drawn from the remaining cards.

Find the probability of getting a card of

(i) diamond (ii) a jack

40. The probability of a defective egg in a lot of 400 eggs is 0.035. Calculate the number of defective eggs in the lot. Also calculate the probability of taking out a non defective egg from the lot.

41. Slips marked with numbers 3,3,5,7,7,7,9,9,9,11 are placed in a box at a game stall in a fair. A person wins if the mean of numbers are written on the slip. What is the probabilty of his losing the game?

42. A box contains 90 discs which are numbered from 1 to 90. If one disc is drawn at random from the box, find the probability that it bears

(i) a two digit number (ii) a perfect square number

(iii) a number divisible by 5.

43. A card is drawn at random from a well shuffled deck of playing cards. Find the probability that the card drawn is

(i) a card of spade or an ace (ii) a red king

(iii) neither a king nor a queen (iv) either a king or a queen

44. A card is drawn from a well shuffled deck of playing cards. Find the probability that the card drawn is

(i) a face card (ii) red colour face card

(iii) black colour face card

45. Ramesh got ₹ 24000 as Bonus. He donated ₹ 5000 to temple. He gave ₹ 12000 to his wife, ₹ 2000 to his servant and gave rest of the amount to his daughter. Calculate the probability of

(i) wife's share (ii) Servant's Share

(iii) daughter's share.

46. 240 students reside in a hostel. Out of which 50% go for the yoga classes early in the morning, 25% go for the Gym club and 15% of them go for the morning walk. Rest of the students have joined the laughing club. What is the probability of students who have joined laughing club?

47. A box contains cards numbered from 11 to 123. A card is drawn at random from the box. Find the probability that the number on the drawn card is:

[CBSE 2018]

(i) A square number (ii) a multiple of 7.

48. A die is thrown twice. Find the probability that:

(i) 5 will come up at least once

(ii) 5 will not come up either time **[CBSE 2019]**

49. Cards marked 1, 3, 5 .... 49 are placed in a box and mixed thoroughly. One card is drawn from the box. Find the probability that the number on the card is :

[CBSE 2017]

(i) divisible by 3 (ii) a composite number

(iii) not a perfect square (iv) multiple of 3 and 5

50. Red queens and black jacks are removed from a pack of 52 playing cards. Find the probability that the card drawn from the remaining cards is:

[CBSE 2015]

(i) a card of clubs or an ace (ii) a black king

(iii) neither a jack nor a king (iv) either a king or a queen

51. A box contain 100 red cards, 200 yellow cards and 50 blue cards. If a card is drawn at random from the box, find the probability that it will be:

[CBSE 2012]

(a) a blue card

(b) not a yellow card

(c) neither yellow nor a blue card

ANSWERS AND HINTS

1. (a) 0 and 1 (b) 0 (c) 1 and sure event (d) 1

(e) 1 (f) $\frac{5}{9}$ (g) 4 (h) 36

2. (a) False, because $0 \le P(A) \le 1$

(b) False, because $0 \le P(A) \le 1$

3. (i) (C) (ii) (C)

(iii) (A) (as unlikely to happen) (iv) (B) (prime no. 2, 3, 5, 7)

(v) (A) (vi) (A)

(vii) (B) (Face card = 12, Remaining cards = 40)

4. (i) (C)

(ii) (A) (Sample space = bbb, bbg, bgb, gbb, ggg, ggb, gbg, ggb)

(iii) (D) (Probability $\frac{1}{15}$)

(iv) (A) (Total weeks 52, Remaining day 1, sample space = {S, M, Tu, W, Th, F, Sat})

(v) (C)

(vi) (D) (vowels A, A, E, I)

(vii) (D)

5. Total = 52

No. of Aces = 4

No. of kings = 4

P (neither ace nor king) = $\frac{44}{52} = \frac{11}{13}$

6. P(not defective) = $1 - \frac{35}{250} = \frac{43}{50}$

7. Total case = 3 + 4 = 7

P(occurrence) = $\frac{4}{7}$

8. P(prime no.) = 0

9. No. of face card = 12

P(face card) = $\frac{12}{52} = \frac{3}{13}$

10. Probability of winning = $\frac{5}{1000} = 0.005$

11. Total black king = 2

P(Black King) = $\frac{2}{52} = \frac{1}{26}$

12. Sample space : 1, 2, 3, 4, 5, 6

Perfect square : 1, 4

P(perfect square) = $\frac{2}{6} = \frac{1}{3}$

13. Total cases = 36

Favourable cases (4, 6), (5, 5), (6, 4), (5, 6), (6, 5), (6, 6)

P(sum of two numbers is ≥ 10) = $\frac{6}{36} = \frac{1}{6}$

14. Multiples of 7 are 7, 14, 21, 28, 35

Probability (multiple of 7) = $\frac{5}{35} = \frac{1}{7}$

15. P(sum of 8) = $\frac{5}{36}$

16. P (consonant) = $\frac{21}{26}$

17. P (losing) = 1 – 0.07 = 0.93

18. No. of red cards = 26

No. of Queens = 04 – 2 = 02 (as 2 red queens are included already)

No. of cards that are neither red nor queen = 56 – (26 + 2) = 24

Required probability = $\frac{24}{52} = \frac{6}{13}$

19. (i) Doublets are (1, 1), (2, 2), (3, 3), (4, 4), (5, 5), (6, 6)

Required probability = $\frac{6}{36} = \frac{1}{6}$

(ii) Sum 10 cases : (4, 6), (5, 5), (6, 4)

Required probability = $\frac{3}{36} = \frac{1}{12}$

20. $\frac{x+6}{18} = 2\left(\frac{x}{12}\right) \Rightarrow x = 3$

21. Total outcomes between 1 and 100 = 98

(i) Nos. divisible by 8 : 8, 16, 24, ..., 96

favourable cases = 12

Required probability = $\frac{12}{98} = \frac{6}{49}$

(ii) Probability (integer is not divisible by 8) = $1 - \frac{6}{49} = \frac{43}{49}$

22. Sample space : HHH, TTT, HTT, THT, TTH, THH, HTH, HHT

(i) P(exactly 2 heads) = $\frac{3}{8}$

(ii) P(atleast 2 heads) = $\frac{4}{8} = \frac{1}{2}$

23. Total cards = 50 – 3 + 1 = 48

perfect squares are 4, 9, 16, 25, 36, 49

Required probability = $\frac{6}{48} = \frac{1}{8}$

24. Let the number of blue balls = x

Total balls = $(5 + x)$

P (Blue ball) = 3 × P (Red ball)

$$\frac{x}{5+x} = 3 \times \left(\frac{5}{5+x}\right)$$

$\Rightarrow x = 15$

25. Favourable outcomes : (1, 1), (1, 2), (1, 3), (2, 1), (2, 2), (3, 1)

P (sum less than 5) = $\frac{6}{36} = \frac{1}{6}$

26. Number of total days in the month of November = 30
i.e. 4 complete weeks and 2 days.

$\therefore$ P (5 Sundays) = $\frac{2}{7}$

27. P (atleast two boys) = $\frac{4}{8} = \frac{1}{2}$

28. P (Different numbers) = $\frac{30}{36} = \frac{5}{6}$

29. Favourable outcomes : –2, –1, 0, 1, 2

P ($x^2 \leq 4$) = $\frac{5}{7}$

30. Sample space (1, 1), (1, 4), (1, 9), (1, 16)
(2, 1), (2, 4), (2, 9), (2, 16)
(3, 1), (3, 4), (3, 9), (3, 16)
(4, 1), (4, 4), (4, 9), (4, 16)

Favourable cases $xy < 16$
(1, 1), (1, 4), (1, 9), (2, 1), (2, 4), (3, 1), (3, 4), (4, 1)

Required probability = $\frac{8}{16} = \frac{1}{2}$

31. Total outcomes = 36

(a) Favourable outcomes
(2, 2), (2, 3), (2, 5), (3, 2), (3, 3), (3, 5), (5, 2), (5, 3), (5, 5)

Required probability $\frac{9}{36} = \frac{1}{4}$

(b) Favourable outcomes
(3, 6), (4, 5), (5, 4), (6, 3), (5, 6), (6, 5)

Required probability = $\frac{6}{36} = \frac{1}{6}$

32. $\frac{x}{15+x} = 3 \times \frac{15}{15+x} \quad \Rightarrow \quad x = 45$

No. of black balls = 45

33. (a) $S = \begin{Bmatrix} (1,1)(1,2)(1,3)(1,4)(1,5)(1,6) \\ (2,1)(2,2)(2,3)(2,4)(2,5)(2,6) \\ (3,1)(3,2)(3,3)(3,4)(3,5)(3,6) \\ (4,1)(4,2)(4,3)(4,4)(4,5)(4,6) \\ (5,1)(5,2)(5,3)(5,4)(5,5)(5,6) \end{Bmatrix}$

Favourable outcomes: (2, 6), (3, 4), (4, 3), (6, 2)

Required probability = $\frac{4}{36} = \frac{1}{9}$

(b) Favourable outcomes (sum ≤ 5)

= (1, 1), (1, 2), (1, 3) (1, 4) (2, 1) (2, 2) (2, 3) (3, 1) (3, 2) (4, 1)

Required probability = $\frac{10}{36} = \frac{5}{18}$

34. (i) Total number = 100

Number divisible by 9 and a perfect square are 9, 36, 81

Required probability $\frac{3}{100} = 0.03$

(ii) Prime no. > 80 are 83, 89, 97

Required probability $\frac{3}{100} = 0.03$

35. Total tickets = 35

P(E) = P(getting a prize) = $\frac{10}{35} = \frac{2}{7}$

$P(\bar{E})$ = P(not getting a prize) = $\frac{25}{35} = \frac{5}{7}$

$P(E) + P(\bar{E}) = \frac{2}{7} + \frac{5}{7} = \frac{7}{7} = 1$

36. P(winning) + P(losing) = 1

$\frac{x}{12} + \frac{1}{3} = 1 \Rightarrow x = 8$

37. Total cards = 50 – 3 + 1 = 48

(i) No. divisible by 7 are 7, 14, 21, 28, 35, 42, 49

Required probability = $\frac{7}{48}$

(ii) Two digit no. are 10, 11, 12, ... 50

No. of favourable outcomes = 50 – 10 + 1 = 41

Required probability = $\frac{41}{48}$

38. (i) $\frac{5+2}{18} = \frac{7}{18}$ (ii) $\frac{7+4}{18} = \frac{11}{18}$

(iii) $\frac{7+4+2}{18} = \frac{13}{18}$ (iv) $\frac{7+2}{18} = \frac{9}{18} = \frac{1}{2}$

39. (i) Remaining cards = 52 – 3 = 49

Remaining diamonds = 13 – 3 = 10

Required probability = $\frac{10}{49}$

(ii) P(jack) = $\frac{3}{49}$ (as 1 jack has been removed)

40. Total eggs = 400

P(defective eggs) = 0.035

Let defective eggs = x

$$\frac{x}{400} = 0.035$$

$$x = 400 \times 0.035$$

$$x = 14$$

P(non defective eggs) = 1 – 0.035 = 0.965

41. Mean = $\frac{3+3+5+7+7+7+9+9+9+11}{10} = \frac{70}{10} = 7$

$$\text{P(he loses)} = 1 - \frac{3}{10} = \frac{7}{10}$$

42. Total no. = 90

(i) Two digit no.s 10, 11, 12, ..., 90

No. of favourable cases = 90 – 10 + 1 = 81

Required probability = $\frac{81}{90} = \frac{9}{10}$

(ii) Perfect square no. : 1, 4, 9, 16, 25, 36, 49, 64, 81

Required probability = $\frac{9}{90} = \frac{1}{10}$

(iv) No.s divisible by 5 :
5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90

Required probability = $\frac{18}{90} = \frac{1}{5}$

43. (i) P(a card of spade or an ace) = $\frac{13+3}{52} = \frac{16}{52} = \frac{4}{13}$

(ii) P(red king) = $\frac{2}{52} = \frac{1}{26}$

(iii) P(neither a king nor a queen) = $1 - \frac{8}{52} = 1 - \frac{2}{13} = \frac{11}{13}$

(iv) P(either a king or a queen) = $\frac{8}{52} = \frac{2}{13}$

44. (i) $\frac{12}{52} = \frac{3}{13}$ (ii) $\frac{6}{52} = \frac{3}{26}$ (iii) $\frac{6}{52} = \frac{3}{26}$

45. (i) P(wife's share) = $\frac{12000}{24000} = \frac{1}{2}$

(ii) P(servant's share) = $\frac{2000}{24000} = \frac{1}{12}$

(iii) P(Daughter's share) = $\frac{5000}{24000} = \frac{5}{24}$

46. 10% students joined laughing club

P(students who have joined laughing clubs) = $\frac{10}{100} = \frac{1}{10}$

47. Total cards = 123 – 11 + 1 = 113

(i) Square numbers : 16, 25, 36, 49, 64, 81, 100, 121

Required probability = $\frac{8}{113}$

(ii) Multiple of 7 are 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91, 98, 105, 112, 119.

Required Probality = $\frac{16}{113}$

48. Total outcomes = 36

(i) P(5 will come up at least once) = $\frac{11}{36}$

Favourable cases (1, 5), (2, 5), (3, 5), (4, 5), (5, 5), (6, 5), (5, 1), (5, 2), (5, 3), (5, 4), (5, 6)

(ii) P(5 will not come up either time) = $1-\frac{11}{36}=\frac{25}{36}$

49. S = 1, 3, 5, ..., 49. Total outcome = 25

(i) No. divisible by 3 are 3, 9, 15, 21, 27, 33, 39, 45

Required probability = $\frac{8}{25}$

(ii) Composite Nos : 9, 15, 21, 25, 27, 33, 35, 39, 45, 49

Required probability = $\frac{10}{25}=\frac{2}{5}$

(iii)P(not a perfect square) = 1 – P(perfect square) {Perfect square no. : 1, 9, 25, 49}

$$= 1-\frac{4}{25} = \frac{21}{25}$$

(iv)Multiple of 3 and 5

$\Rightarrow$ Multiple of 15 = 15, 45

Required probability = $\frac{2}{25}$

50. (i) $\frac{16}{48}=\frac{1}{3}$ (ii) $\frac{2}{48}=\frac{1}{24}$

(iii) $1-\frac{6}{48}=1-\frac{1}{8}=\frac{7}{8}$ (iv) $\frac{6}{48}=\frac{1}{8}$

51. (a) P(blue card) = $\frac{50}{350}=\frac{1}{7}$ (b) P(not yellow card) = $\frac{150}{350}=\frac{3}{7}$

(c) P(neither yellow nor blue) = $\frac{100}{350}=\frac{2}{7}$

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PRACTICE-TEST

Probabiltiy

Time : 1 Hr. ***M.M. : 20***

SECTION-A

1. A die is thrown once. find the probability of getting an odd number. **1**
2. A bag contains 4 red and 6 black balls. one ball is drawn from the bag at random. Find the probability of getting a black ball. **1**
3. A single letter is selected from the word PROBABILITY. The probability it is a vowel = ... **1**
4. The probability of selecting a rotten apple randomly from a heap of 900 apples is 0.18. The number of rotten apples are ..... **(CBSE 2017)1**

SECTION-B

5. Find the probability of having 53 friday in a year. **2**
6. One card is drawn at random from the well shuffled pack of 52 cards. Find the probability of getting a black face card or a red face card. **2**
7. A coin is tossed twice. Find the probability of getting atleast one tail. **2**

(CBSE 2014)

SECTION-C

8. A box contains 5 Red, 4 green and 7 white marbles. One marbles is drawn at random from the box. What is the probability that marble is

   (i) not white (ii) neither red nor white **3**

8. A die is thrown once. Find the probability that the number.

   (i) is an even prime number (ii) is a perfect square **3**

SECTION-D

10. A box contains cards numbered 1,3,5,.....,35. Find the probability that the card drawn is

    (i) a prime number less than 15 (ii) divisible by both 3 and 15 **4**

    OR

    From a deck of 52 playing cards, king, queen and jack of a club are removed and a card is drawn from the remaining cards. Find the probability that the card drawn is

    (i) A spade

    (ii) A queen

    (iii) A club