**Educonclave**

1. The number of times a particular entry occurs in the given data is called its

   (a) frequency (b) range (c) mode (d) average

2. Tally marks are usually marked in bunches of

   (a) 4 (b) 5 (c) 10 (d) 3

3. The frequency with tally marks ⫫⫫⫫ ⫫⫫⫫ ⫫⫫⫫ ||| is

   (a) 13 (b) 17 (c) 19 (d) 18

4. The difference between upper limit and lower limit of a class is called

   (a) mid value (b) frequency (c) class size (d) tally marks

5. In the class $0-25, 25-50, 50-75$, etc 25 lies in the class

   (a) $0-25$ (b) $25-50$ (c) Both (a) and (b) (d) Either (a) or (b)

6. The mid value of a class interval is called its

   (a) class size (b) class mark (c) range (d) frequency

7. In a histogram, class size can be obtained by

   (a) width of bars (b) height of bars (c) lower limit of bars (d) upper limit of bars

8. In which of the following there exist no gap between two successive bars?

   (a) bargraph (b) pictograph (c) histogram (d) none of these

9. The number of teachers with atleast 40 years of age is

   (a) 15 (b) 10 (c) 5 (d) 25

10. Total number of teachers considered for survey is

    (a) 55 (b) 60 (c) 65 (d) 70

11. Which of the following is CORRECT for a pie chart?

    (a) Two or more central angles cannot be equal.

    (b) The measure of no central angle is more than 180°.

    (c) The sum of measure of two central angles can never be 90°.

    (d) None of these

12. If the values of components are expressed as percentage of the total value, then the central angle of a components is given by

    (a) Value in % of the component $\times 360^\circ$ (b) $\dfrac{\text{Value in \% of the component} \times 360^\circ}{10}$

C-9, Greater Kailash Enclave 2, New Delhi; Phone 9810815644, 9910393669
Email: info.educonclave@gmail.com; sangeettuli@gmail.com

1

(c) Value in % of the component $\times 100 \times 360^\circ$

(d) $\dfrac{\text{Value in \% of the component} \times 360^\circ}{100}$

13. A man's monthly salary is ₹45000 and the central angle representing his travel expenses in the pie chart is 45°. The amount spent by him on travel is

(a) ₹ 6425   (b) ₹ 5625   (c) ₹ 3985   (d) ₹ 7545

14. In the given pie chart, which pet is half as the number of dogs?
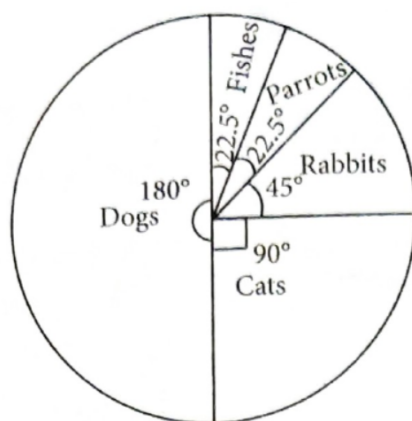

(a) cats   (b) parrots   (c) rabbits   (d) fishes

Direction (15-17): The following pie chart shows the survey of types of books read by people of a locality. Study it carefully and answer the following questions.
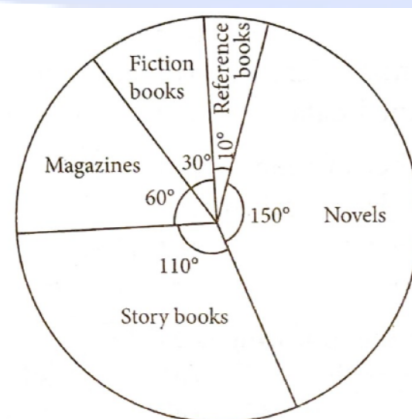

15. Which two types of books are less popular than Magazines?
    (a) Story books and Fiction books   (b) Story books and Novels
    (c) Fiction books and Reference books   (d) Reference books and Story books

16. If the number of people reading Story books are 275, then the total number of people in the survey is
    (a) 375   (b) 450   (c) 360   (d) 900

17. What percent of the total number of people in the survey read Novels?

    (a) 75%   (b) 51%   (c) 41.67%   (d) 62.33%

18. In the given pie chart, what fraction of the circle is occupied by sector A ?
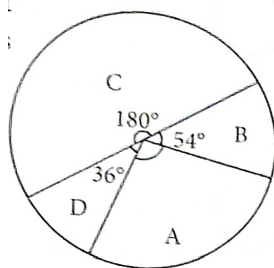
(a) $\dfrac{2}{5}$ (b) $\dfrac{3}{4}$ (c) $\dfrac{1}{4}$ (d) $\dfrac{1}{3}$

Direction (19-21): The following pie chart shows amount spent on different sports by a school in a year. If the total amount spent is ₹ 45000, then answer the following questions.
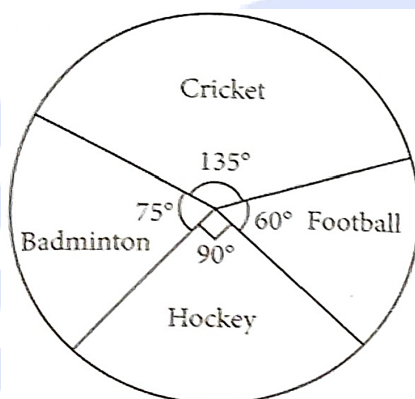

19. How much more amount is spent on Badminton than Football?

(a) ₹ 9375   (c) ₹ 7500   (b) ₹ 1875   (d) ₹ 3750

20. Amount spent on Hockey is

(a) ₹ 11250   (c) ₹ 9375   (b) ₹ 7500   (d) ₹ 15450

21. What is the ratio of amount spent on Cricket to that on Hockey?

(a) 3: 2   (b) 1: 2   (c) 2: 3   (d) 5: 6

22. The total number of outcomes on throwing a die is

(a) 12   (b) 4   (c) 6   (d) 8

23. The probability of getting a red card when a card is chosen at random from a pack of 52 cards is

(a) $\dfrac{1}{13}$ (b) $\dfrac{1}{2}$ (c) $\dfrac{1}{52}$ (d) $\dfrac{1}{4}$

24. The number 5 may appear 18 times in a random throw of die of 50 times. The probability of getting no 5 is

(a) $\dfrac{5}{18}$ (b) $\dfrac{9}{25}$ (c) $\dfrac{16}{25}$ (d) $\dfrac{1}{10}$

25. The probability of getting a blue marble on picking a marble at random from a bag of 5 yellow and 5 green marbles is

(a) $\dfrac{1}{2}$ (b) 1 (c) $\dfrac{2}{5}$ (d) 0

26. On spinning the given wheel, the probability that the pointer does not stops at 4 is
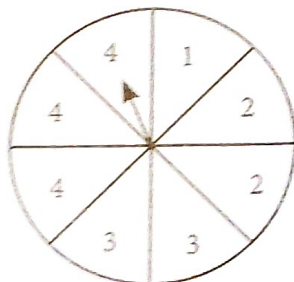
(a) $\dfrac{1}{8}$ (b) $\dfrac{1}{4}$ (c) $\dfrac{3}{8}$ (d) $\dfrac{5}{8}$
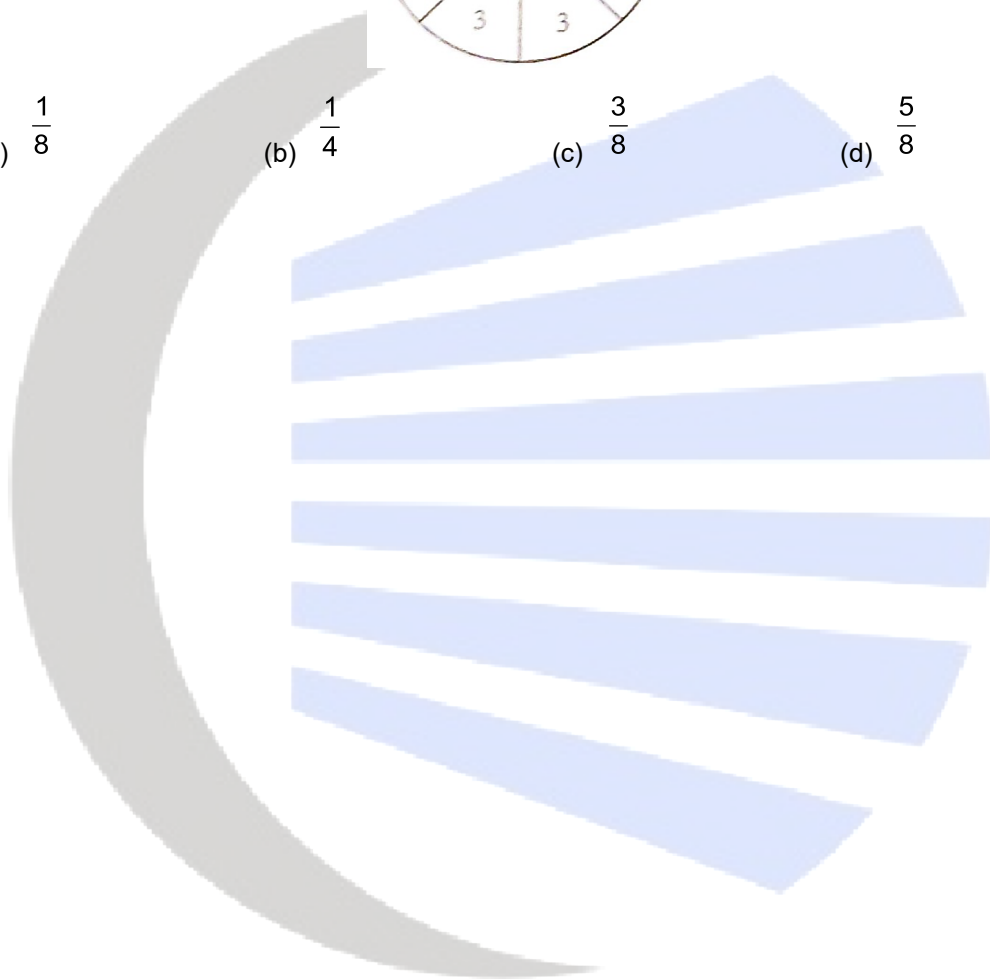
27. An unbiased die is thrown. What is the probability of getting a number between 2 and 6 ?

    (a) $\dfrac{1}{2}$ (b) $\dfrac{1}{3}$ (c) $\dfrac{1}{4}$ (d) $\dfrac{2}{3}$

28. On tossing a coin for 15 times, the outcomes are $H,T,T,H,H,H,T,T,H,H,T,T,T,H$ and H. The probability of getting a head is

    (a) $\dfrac{7}{15}$ (b) $\dfrac{8}{15}$ (c) $\dfrac{1}{15}$ (d) $\dfrac{2}{15}$

29. A box contains 2 pencils, 3 markers, 4 pens, and 3 erasers. The probability of getting an eraser at random from the box is

    (a) $\dfrac{1}{3}$ (b) $\dfrac{3}{8}$ (c) $\dfrac{1}{4}$ (d) $\dfrac{2}{3}$

30. A geometric representation showing the relationship between a whole and its parts is a

    (a) Pie chart   (b) Histogram   (c) Bar graph   (d) Pictograph

31. The range of the data 30,61,55,56,60,20,26,46, 28, 56 is

    (a) 26   (b) 30   (c) 41   (d) 61

32. Which of the following is not a random experiment?

    (a) Tossing a coin   (b) Rolling a dice

    (c) Choosing a card from a deck of 52 cards   (d) Throwing a stone from a roof of a building

33. What is the probability of choosing a vowel from the alphabets?

    (a) $\dfrac{21}{26}$ (b) $\dfrac{5}{26}$ (c) $\dfrac{1}{26}$ (d) $\dfrac{3}{26}$

34. In a school only 3 out of 5 students can participate in a competition. What is the probability of the students who do not make it to the competition?

    (a) 0.65   (b) 0.4   (c) 0.45   (d) 0.6

Direction (35-37): Students of a class voted for their favourite colour and a pie chart was prepared based on the data collected. Observe the pie chart given below and answer the questions based on it.
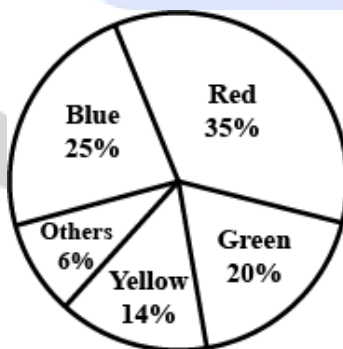
35. Which colour received $\dfrac{1}{5}$ of the votes?

    (a) Red   (b) Blue   (c) Green   (d) Yellow

36. If 400 students voted in all, then how many did vote 'Others' colour as their favourite?

(a) 6   (b) 20   (c) 24   (d) 40

37. Which of the following is a reasonable conclusion for the given data?

(a) $\dfrac{1}{20}^{th}$ student voted for blue colour.

(b) Green is the least popular colour.

(c) The number of students who voted for red colour is two times the number of students who voted for yellow colour.

(d) Number of students liking together yellow and green colour is approximately the same as those for red colour.

38. Listed below are the temperature in $^\circ C$ for 10 days.

$-6, -8, 0, 3, 2, 0, 1, 5, 4, 4$

What is the range of the data?

(a) 8°C   (b) 13°C   (c) 10°C   (d) 12°C

39. Rahul, Varun and Yash are playing a game of spinning a coloured wheel. Rahul wins if spinner lands on red. Varun wins if spinner lands on blue and Yash wins if it lands on green. Which of the following spinner should be used to make the game fair?

(i)   (ii)   (iii)   (iv)
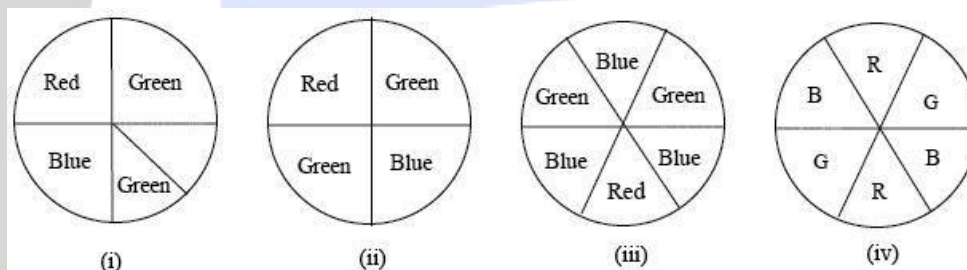
(a) i   (b) ii   (c) iii   (d) iv

Codes:

(a) If both Statement I and Statement II are true and Statement II is the correct explanation of Statement I.

(b) If both Statement I and Statement II are true but Statement II is not the correct explanation of Statement I.

(c) If statement I is true but Statement II is false.

(d) If statement I is false but Statement II is true.

40. Statement-I : The class size of the class interval 25-35 is 10.

Statement-II : The mid-point of a class interval is called its class size.

41. Statement-I : In a pie chart, the central angle of any component is given by $\dfrac{\text{Value of component}}{\text{Total value}} \times 360^\circ$

Statement-II : The sum of angles of all the sections in a pie chart is always 360°.

42. Statement-I : The probabilities of all equally likely events in a random experiment is same.

Statement-II : The outcomes which do not have equal chances of occurrence in a random experiment are called equally likely events.

43. Statement-I : The difference between the upper class limit and lower class limit is called the frequency.

Statement-II : In the class interval $30 - 40, 40$ is the upper class limit.

44. Statement-I : We use tally mark to make a frequency table.

Statement-II : represents that the frequency of given data is $4 - 1 = 3$.

45. Statement-I : The marks of Class X of top 5 students in science are as follow 97, 95, 99, 98.5 and 98 . Then, Range $= 99 - 95 = 4$

Statement-II : Range is defined as the difference of first and last value of the given data. (When data is arranged in descending order.

ANSWERS

1. A	2. B	3. D	4. C
5. B	6. B	7. A	8. C
9. D	10. C	11. D	12. D
13. B	14. A	15. C	16. D
17. C	18. C	19. B	20. A
21. A	22. C	23. B	24. C
25. D	26. D	27. A	28. B
29. C	30. A	31. C	32. D
33. B	34. B	35. C	36. C
37. D	38. B	39. D	40. C
41. B	42. C	43. C	44. C
45. A			