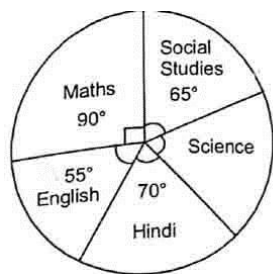


DI and PROBABILITY

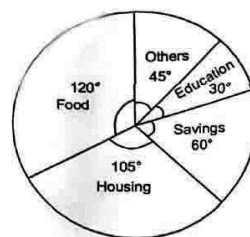
Direction: The pie-chart given below shows the marks obtained by a student. If the marks obtained by him in the examination were 540, answer question Nos. 1 to 4 based on this pie-chart.



- In which subject, did the student obtain 105 marks?
 - Maths
 - Social Studies
 - Science
 - Hindi
- What is the central angle corresponding to Science?
 - 40°
 - 80°
 - 75°
 - 60°
- How many more marks were obtained by the student in Maths than those in Hindi?
 - 30
 - 20
 - 10
 - 40
- How many marks were obtained by the student in Science?
 - 130
 - 120
 - 125
 - 140

(**Direction** : For Q. No. 5 to 8) The pie-chart given here shows expenditures incurred by a family on various items and their savings, which amount to ₹8,000 in a month.

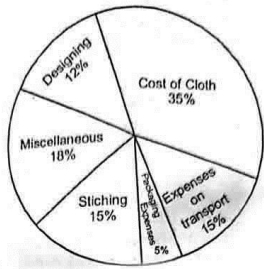
Study the chart and answer the questions number 5 to 8 based on the pie-chart.



- How much more amount is spent on food than on housing?
 - ₹ 1,000
 - ₹ 3,000
 - ₹ 2,000
 - ₹2,500
- How much expenditure is incurred on education?
 - ₹ 3,000
 - ₹ 5,000
 - ₹ 4,000
 - ₹ 7,000
- The ratio of the expenditure on food to the savings is
 - 3 : 2
 - 2 : 1
 - 4 : 3
 - 3 : 4
- What is the total expenditure of the family for the month?
 - ₹ 40,000
 - ₹48,000
 - ₹45,000
 - ₹50,000

(**Direction Q. 9-13**): The Pie-chart given here shows the expenses incurred by a factory in producing hankerchief.

Study the pie-chart and answer question number 9 to 13 based on it.



9. If the Packaging charges are ₹ 1,500 then the miscellaneous charges are

- (a) ₹ 3,750 (b) ₹ 4,500
(c) ₹ 5,250 (d) ₹ 5,400

10. The ratio of the cost of Cloth to Stiching is

- (a) 3 : 7 (b) 7 : 3
(c) 7 : 1 (d) 1 : 7

11. If the cost of Cloth is ₹ 10,500, then the cost of transport is

- (a) ₹ 4,500 (b) ₹ 5,400
(c) ₹ 6,000 (d) ₹ 6,250

12. The measure of the central angle of the sector for the designing charges is (a) 64.8° (b) 54°

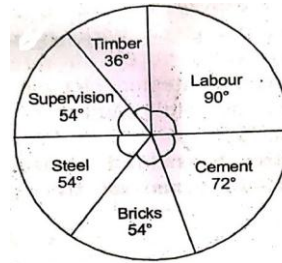
- (c) 43.2° (d) 36°

13. if 5000 hankerchiefs are produced. Packaging expenses amount to. ₹ 1,500

and the shopkeeper wants a profit of 25% 25%, then the marked price of one hankerchief should be

- (a) ₹ 7.50 (b) ₹ 10
(c) ₹ 12.5 (d) ₹ 15

Direction (Q. 14-17) : The pie chart given here shows the break-up of the cost of construction of a house on various heads. Study the chart and answer question numbers 30 to 33 based on it.



14. If the total cost of construction of the house is ₹15,00,000, how much amount of money was spent on labour.

- (a) ₹ 9,000 (b) ₹ 2,50,000
(c) ₹ 3,60,000 (d) ₹ 3,75,000

15. The total expenditure incurred on bricks, steel and cement is what percent of the total cost of construction?

- (a) 50 (b) 54
(c) 72 (d) 75

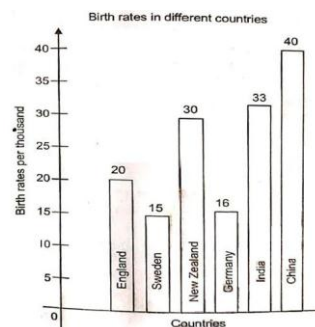
16. Expenditure incurred in timber is what percent of the expenditure on cement ?

- (a) 36 (b) 50
(c) 72 (d) 18

17. Out of the total cost (₹ 15,00,000) of construction, how much was spent on labour and supervision combined together?

- (a) ₹ 1,44,000 (b) ₹ 3,00,000
(c) ₹ 6,00,000 (d) ₹ 7,50,000

(**Direction** : (Q. 18-22) Study the bar diagram given below carefully and answer the following questions based on it.



18. The birth-rate of which country is 25% more than that of Germany?

- (a) India (b) China
(c) England (d) New Zealand

19. The birth-rate of India is what percent of the birth-rate of England?

- (a) 165% (b) 155%
(c) 140% (d) 100%

20. The birth-rate China is how many times the birth-rate of Germany?

- (a) 0.4 (b) 5.2
(c) 4.0 (d) 2.5

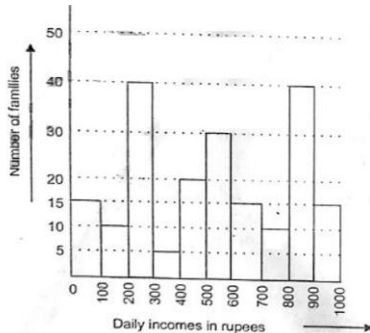
21. What is the ratio of birth-rate of India to that of Sweden?

- (a) 5 : 11 (b) 11 : 5
(c) 2 : 1 (d) 1 : 2

22. By how much percent is the birth-rate of England less than the birth-rate of New Zealand?

- (a) 30% (b) 33%
(c) 45% (d) 50%

Direction: The Histogram, given below, shows the number of families of a locality having various daily incomes, as obtained by a survey. Observe the graph and answer question Numbers 23-27 based on it.



23. In all, how many families were surveyed?

- (a) 235 (b) 220
(c) 200 (d) 195

24. The number of families, whose daily incomes are ₹ 800 or above, is

- (a) 50 (b) 55
(c) 65 (d) 80

25. The number of families, whose daily incomes are below ₹ 200, is

- (a) 25 (b) 20
(c) 15 (d) 10

26. The number of families, whose daily incomes are between ₹ 500 and ₹800, is

- (a) 35 (b) 40
(c) 45 (d) 55

27. What per cent of families have their daily incomes less than ₹ 500?

- (a) 90 (b) 45
(c) 30 (d) 20

Directions : Mark (✓) against the correct answer.

28. In a simultaneous throw of two coins, the probability of getting at least one head is

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

29. Three unbiased coins are tossed. What is the probability of getting at least 2 heads?

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

30. Three unbiased coins are tossed. What is the probability of getting at most two heads?

- (a) $\frac{3}{4}$ (b) $\frac{1}{4}$
(c) $\frac{3}{8}$ (d) $\frac{7}{8}$

31. In a single throw of a die, what is the probability of getting a number greater than 4 ?

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

32. In a simultaneous throw of two dice, what is the probability of getting a total of 7 ?

- (a) $\frac{1}{6}$ (b) $\frac{1}{4}$
(c) $\frac{2}{3}$ (d) $\frac{3}{4}$

33. In a simultaneous throw of two dice, what is the probability of getting a total of 10 or 11 ?

- (a) $\frac{1}{4}$ (b) $\frac{1}{6}$
(c) $\frac{7}{12}$ (d) $\frac{5}{36}$

34. In a lottery, there are 10 prize and 25 blanks. A lottery is drawn at random. What is the probability of getting a prize?

- (a) $\frac{7}{10}$ (b) $\frac{2}{5}$
(c) $\frac{2}{7}$ (d) $\frac{5}{7}$

35. A card is drawn from a pack of 52 cards. The probability of getting a queen of club or a king of heart is

- (a) $\frac{1}{13}$ (b) $\frac{2}{13}$
(c) $\frac{1}{26}$ (d) $\frac{1}{52}$

36. One card is drawn from a pack of 52 cards. What is the probability that the card drawn is either a red card or a king?

- (a) $\frac{1}{2}$ (b) $\frac{6}{13}$
(c) $\frac{7}{13}$ (d) $\frac{27}{52}$

37. From a pack of 52 cards, two cards are drawn together at random. What is the probability of both the cards being kings?

- (a) $\frac{1}{15}$ (b) $\frac{25}{27}$
(c) $\frac{35}{256}$ (d) $\frac{1}{221}$

38. Two cards are drawn together from a pack of 52 cards. The probability that one is a spade and one is a heart, is

- (a) $\frac{3}{20}$ (b) $\frac{29}{34}$
(c) $\frac{47}{100}$ (d) $\frac{13}{102}$

39. A basket contains 4 red, 5 blue and 3 green marbles. If 2 marbles are drawn at random from the basket, what is the probability that both are red?

- (a) $\frac{3}{7}$ (b) $\frac{1}{2}$
(c) $\frac{1}{11}$ (d) $\frac{1}{6}$

40. An urn contains 6 red, 4 blue, 2 green and 3 yellow marbles. If two marbles are drawn at random from the urn, what is the probability that both are red?

- (a) $\frac{1}{6}$ (b) $\frac{1}{7}$
(c) $\frac{2}{15}$ (d) $\frac{2}{5}$