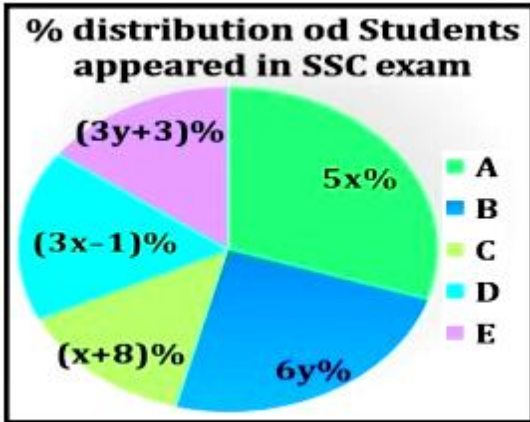


**DI Test 7**

**Directions {1 – 5):** Study the following chart carefully and answer the questions given beside. The pie chart given below shows the percentage distribution of number of students who appeared in SSC exams from five different cities. The difference between X and Y is 2. sum of number of students who appeared in exam from C and D is 10850.



- Find the difference Number of students who appeared SSC exams from city D and C.  
(A) 1050 (B) 1020 (C) 1030 (D) 1040 (E) None of these
- Number of students who appeared in SSC exams from city B is how much percent more or less than number of students who appeared in SSC exams from city D?  
(A) 72.89% (B) 67.54% (C) 52.13% (D) 41.17% (E) None of these
- Number of students who appeared in SSC exams from city C is what percent of number of students who appeared in SSC exams from city A?  
(A) 22.55% (B) 46.66% (C) 34.85% (D) 19.37% (E) None of these
- The ratio of number of students who appeared in SSC exams to number of students who appeared in Bank exams from city B is 7 : 5 respectively. Find the number of girls who appeared in Bank exams from city B, If 57% boys appeared in Bank exams from city B.  
(A) 2250 (B) 2360 (C) 2580 (D) 2430 (E) None of these
- Number of students who appeared in SSC exams from city F is 1870 less than city E while number of students who appeared in Banking exams from city F is 1210 more and number of students who appeared in Railway exams from city F is 1050 less than number of students who appeared in SSC exams from city F. Find the total number of students who appeared in SSC, Banking and Railway exams from city F.  
(A) 10700 (B) 10500 (C) 10300 (D) 10900 (E) None of these

**Directions (6 – 10):** The table shows the data of the number of apples, mangoes and watermelons sold by five different fruit sellers. Study the data carefully and answer the following questions.

Shops	Apples : Mangoes	Apple + Mangoes	Water Melons – Mangoes
M	11:12	4715	360
O	5:6	6050	260
N	4:3	4340	410
Q	2:1	4560	310
P	3:4	5250	330

**6. What is the difference between the number of apples sold by O and Q together and the number of mangoes sold by M and O together?**

- A. 20 B. 40 C. 30 D. 50 E. None of the above

**7. Find the average number of watermelons sold by them all.**

- A. 2762 B. 2788 C. 2724 D. 2756 E. None of the above

**8. What is the difference between the average number of apples and the average number of mangoes sold by them all?**

- A. 125 B. 129 C. 121 D. 127 E. None of the above

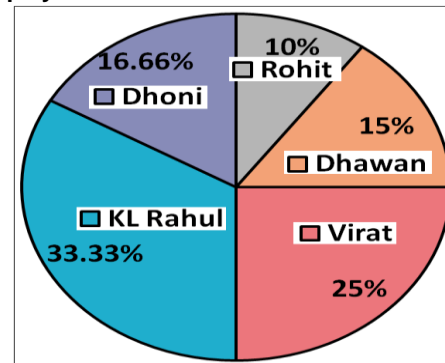
**9. What is the ratio of the number of apples sold by O and P together to that of the number of mangoes sold by P?**

- A. 2:3 B. 3:5 C. 4:1 D. 1:2 E. None of the above

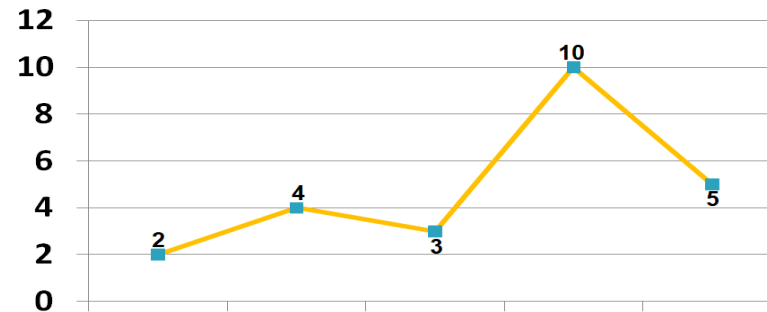
**10. The number of watermelons sold by O are approximately what per cent more or less than the number of watermelons sold by P?**

- A. 5% B. 9% C. 7% D. 3% E. None of the above

**Directions (11 – 15):** Following pie chart shows the percentage distribution of runs scored by 5 different players in an ODI. The line graph shows the number of sixes hit by respective player. Total runs scored = 360.



Number of sixes



Rohit Dhawan Virat KL Rahul Dhoni

**11. If the total runs of KL Rahul obtained by only fours and sixes then find the total number of fours he hit?** (A) 12 (B) 15 (C) 18 (D) 10 (E) None of these

**12. Find the average runs of all 5 cricketers scored by hitting sixes only?**

- (A) 28 (B) 28.8 (C) 27.2 (D) 28.2 (E) None of these

**13. Total runs scored by Virat is how much percent more/less than total runs scored by Dhoni?** (A) 25% (B) 33.33% (C) 15% (D) 50% (E) None of these

**14. How much % more or less is the runs scored by Rohit in sixes than the total runs scored by Dhawan?** (A) 77.77% (B) 75.45% (C) 77.95% (D) 76.42% (E) None of these

**15. If Dhawan hit 2 fours and Dhoni hit 5 fours then find the difference between the runs scored without hitting boundaries by Dhawan and Dhoni?**

(A) 12 (B) 22 (C) 32 (D) 42 (E) None of these

**Directions (16 – 20):**Table shows the number of students whose age in different ranges from four different classes. Range of Age.

Range of age	Class 9	Class 10	Class 11	class12
<10	8	0	0	0
≥ 10 and <14	15	10	8	0
≥14 and <16	0	20	18	40
≥16 and <18	0	0	24	25

**16.** Find that total number of students from all the four classes together whose age is less than or equal to 16 is what % of total number of students in class 12?

(A) 225% (B) 133.33% (C) 150.45% (D) 183.07% (E) None of these

**17.** Total number of students in class 11 is what % more than total number of students in class 9?

(A) 17.39% (B) 117.39% (C) 19.39% (D) 150% (E) None of these

**18.** Find the average age of the students whose age in the range (≥14 and <16) from all classes together if sum of their ages is 1716.

(A) 22 (B) 22.5 (C) 24 (D) 24.5 (E) None of these

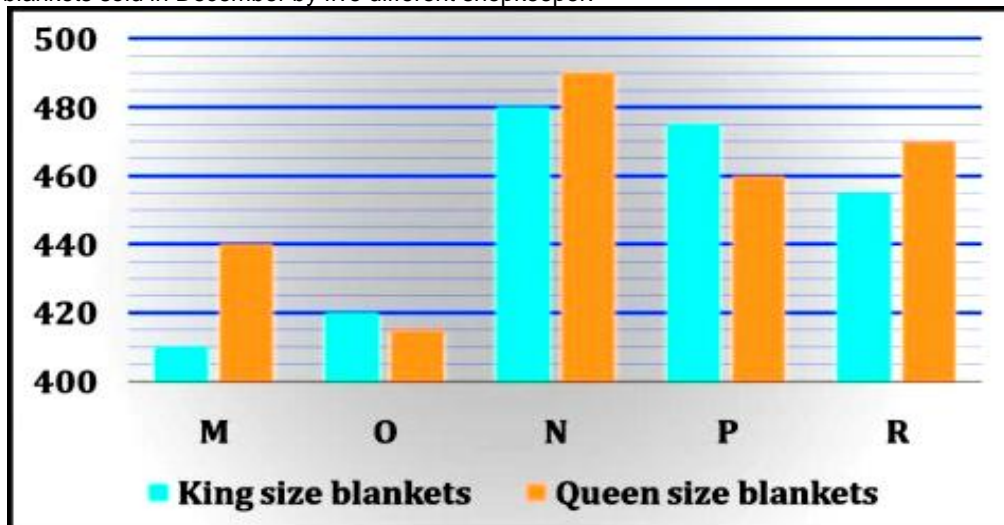
**19.** Find ratio of total number of students in all four class together whose age in the range (<10) to the total number of students on Class 10.

(A) 4 : 11 (B) 26 : 29 (C) 15 : 4 (D) 4 : 15 (E) None of these

**20.** What is the total number of students in all four classes together?

(A) 146 (B) 168 (C) 188 (D) 148 (E) None of these

**Directions {21 – 25):** Study the following chart carefully and answer the questions given beside. The bar chart given below shows the number of King size blankets and number of Queen size blankets sold in December by five different shopkeeper.



**21.** Find the average of number of King size blankets sold by all five shopkeepers.

(A) 448 (B) 229 (C) 422 (D) 538 (E) None of these

**22.** Total number of blankets sold by R is how much percent more/less than total number of blankets sold by M?

(A) 7.23% (B) 8.82% (C) 5.68% (D) 6.89% (E) None of these

**23.** What is ratio of sum of number of King size blankets sold by O and N together to number of Queen size blankets sold by M and P together?

(A) 5 : 2 (B) 3 : 7 (C) 4 : 3 (D) 1 : 1 (E) None of these

**24.** Ratio of number of Silk to Woollen King size and Queen size blankets sold by P is respectively is 11 : 8 and 12 : 11 respectively, then find the difference between number of Silk King size blankets and number of Woollen Queen size blankets sold by P.

(A) 41 (B) 63 (C) 55 (D) 32 (E) None of these

**25.** Ratio of number of King size blankets to Mink blankets sold by P and R is respectively 5 : 6 and 13 : 7, then find the number of Mink blankets sold by P and R together.

(A) 820 (B) 815 (C) 825 (D) 830 (E) None of these

**Directions (26 – 30):** Answer the questions based on the information given below.

Five different shops sold two items i.e. spoon and fork. The table given below shows the price per spoon, price per fork and the total number of items sold by these shops. It also shows the total revenue generated by selling all the given items by each of the five shops.

	Total number of items sold	Price per spoon (in Rs.)	Price per fork (in Rs.)	Total revenue generated (in Rs.)
Shop A	150	15	60	4950
Shop B	180	25	45	6300
Shop C	160	20	50	4400
Shop D	220	24	70	9328
Shop E	200	30	80	9750

**26.** What is the difference between the total revenue generated by Shop D by selling all the spoons and the total revenue generated by it by selling all the forks?

A. Rs. 2,864 B. Rs. 2,992 C. Rs. 3,048 D. Rs. 3,172 E. None of these

**27.** What is the average revenue generated by selling all the items by Shops A, B and E?

A. Rs. 7,000 B. Rs. 7,250 C. Rs. 7,100 D. Rs. 7,200 E. None of these

**28.** Number of spoons sold by Shop B are how much percent less/more than the number of forks sold by Shop A?

A. 25% B. 33.33% C. 42.5% D. 50% E. None of these

**29.** What is the ratio of the number of spoons sold by Shop E to the number of forks sold by Shop E?

A. 7:5 B. 4:3 C. 5:3 D. 8:5 E. None of these

**30.** Number of spoons and forks sold by Shop F are 25% and 50% more than the respective number of spoons and forks sold by Shop C. Find the total revenue generated by Shop F if the price of a spoon and a fork sold by it is Rs 18 and Rs. 65, respectively.

A.Rs. 6,000 B.Rs. 6,200 C.Rs. 6,400 D. Rs. 6,600 E. None of these

(1 - 5)

$$x - y = 2$$

$$x = 2 + y$$

$$5x + 6y + (x + 8) + (3x - 1) + (3y + 3) = 100$$

$$9x + 9y + 10 = 100$$

$$18 + 9y + 9y + 10 = 100$$

$$18y = 100 - 28 = 72$$

$$y = 4$$

$$x = 2 + 4 = 6$$

$$\text{Total Students appeared in SSC Exam} = \frac{(10850 \times 100)}{(x + 8 + 3x - 1)}$$

$$= \frac{(10850 \times 100)}{(6 \times 4 + 7)} = \frac{(10850 \times 100)}{31} = 35000$$

City →	A	B	C	D	E	Total
Students appeared	10500	8400	4900	5950	5250	35000

1. Ans. (A)

$$\text{Difference} = 5950 - 4900 = 1050$$

2. Ans. (D)

$$\text{Required \%} = \frac{(8400 - 5950)}{5950} \times 100 = 41.17\%$$

3. Ans. (B)

$$\text{Required \%} = \frac{4900}{10500} \times 100 = 46.66\%$$

4. Ans. (C)

$$\text{Boys appeared in Bank exam frm city B} = 8400 \times \frac{5}{7} \times 0.43 = 2580$$

5. Ans. (C)

$$\text{Students appeared in SSC, Banking and Railways exam from city F} \\ = (5250 - 1870) \times 3 + 1210 - 1050 = 3380 \times 3 + 160 = 10140 + 160 = 10300$$

{6 - 10}

**Answer key :**

1. Required difference = 5790 - 5760 = 30

2. Required average =  $\frac{13810}{5} = 2762$

3. Required difference = 2555 - 2428 = 127

4. Required ratio =  $\frac{5000}{3000} = 5:3$  (None of the above)

5. Required percentage =  $\frac{3560 - 3330}{3330} \times 100 = 7\%$

{11 - 15}

Player →	Rohit	Dhawan	Virat	KL Rahul	Dhoni	Total
Run scored	36	54	90	120	60	360
By 6's	2 × 6 = 12	4 × 6 = 24	3 × 6 = 18	10 × 6 = 60	5 × 6 = 30	144
Other	24	30	72	60	30	216

11) Ans. (B)

$$\text{Number of 4 hit by KL Rahul} = \frac{60}{4} = 15$$

12) Ans. (B)

$$\text{Average run scored by hitting 6 only} = \frac{144}{5} = 28.8$$

13) Ans. (D)

$$\text{Run scored by Virat are more than that of Dhoni by} \\ = \frac{(90 - 30) \times 100}{60} = 50\%$$

14) Ans. (A)

$$\text{Run scored by Rohit by hitting 6 are less than total run scored by Dhawan by} = \frac{(54 - 12) \times 100}{54} = 77.77\%$$

15) Ans. (A)

$$\text{Run scored by without boundary by Dhawan} = 54 - 24 - 2 \times 4 = 54 - 32 = 22$$

$$\text{Dhoni} = 60 - 30 - 5 \times 4 = 60 - 50 = 10$$

$$\text{Difference} = 22 - 10 = 12$$

{16 - 20}

16) Ans. (D)

$$\text{Student whose age is less than or equal to 16}$$

$$= 8 + 15 + 10 + 8 + 20 + 18 + 40 = 119$$

$$\text{Total students in 12th} = 40 + 25 = 65$$

$$\% \text{ of Student less than equal to 16 year age with total students in class 12th} = \frac{119 \times 100}{65} = 183.07\%$$

17) Ans. (B)

$$\text{Students in class 11th} = 8 + 18 + 24 = 50, \text{ Student in class 9th} = 8 + 15 = 23$$

$$\text{Students in 11th class are more than by Students in 9th class by}$$

$$= \frac{(50 - 23) \times 100}{23} = 117.39\%$$

18) Ans. (A)

$$\text{Average age of Students between } (\geq 14 \text{ \& } < 16) \text{ age group} = \frac{1716}{78} = 22$$

19) Ans. (D)

$$\text{Students in age group } (< 10) : \text{ Students in 10th class} = 8 : 30 = 4 : 15$$

20) Ans. (B)

$$\text{Total students in all 4 classes} = 23 + 30 + 50 + 65 = 168$$

{21 - 25}

Shopkeeper →	M	O	N	P	R	Total
King Size	410	420	480	475	455	2240
Queen Size	440	415	490	460	470	2275
Total	850	835	970	935	925	4515

21. Ans. (A)

$$\text{Average of King size blankets} = \frac{2240}{5} = 448$$

22. Ans. (B)

$$\text{Required \%} = \frac{(925 - 850)}{850} \times 100 = 8.82\%$$

23. Ans. (D)

$$\text{Ratio} = (420 + 480) : (440 + 460) = 900 : 900 = 1 : 1$$

24. Ans. (C)

$$\text{Silk King size blankets sold by P} = 475 \times \frac{11}{19} = 275$$

$$\text{Woollen Queen size blankets sold by P} = 460 \times \frac{11}{23} = 220$$

$$\text{Difference} = 275 - 220 = 55$$

25. Ans. (B)

Mink blankets sold by P & R =  $475 \times \frac{6}{5} + 455 \times \frac{7}{13} = 570 + 245$   
 = 815

**{26 – 30}**

**Solution**

Let the number of spoons sold by Shop A = x

So the number of forks sold by Shop A =  $150 - x$

So according to question:  $15x + 60 \times (150 - x) = 4950$

$$15x + 9000 - 60x = 4950$$

$$45x = 4050$$

$$x = 90$$

So, the number of spoons sold by Shop A = 90

Number of forks sold by Shop A =  $150 - 90 = 60$

Let the number of spoons sold by Shop B = y

So, the number of forks sold by Shop B =  $180 - y$

So according to question:  $25y + 45 \times (180 - y) = 6300$

$$25y + 8100 - 45y = 6300$$

$$20y = 1800$$

$$y = 90$$

So, the number of spoons sold by Shop B = 90

Number of forks sold by Shop B =  $180 - 90 = 90$

Let the number of spoons sold by Shop C = z

So the number of forks sold by Shop C =  $160 - z$

So according to question:  $20z + 50 \times (160 - z) = 4400$

$$20z + 8000 - 50z = 4400$$

$$30z = 3600$$

$$z = 120$$

So the number of spoon sold by Shop C = 120

Number of forks sold by Shop C =  $160 - 120 = 40$

Let the total number of spoons sold by Shop D = a

So the total number of forks sold by Shop D =  $220 - a$

So according to question:  $24 \times a + (220 - a) \times 70 = 9328$

$$24a + 15400 - 70a = 9328$$

$$46a = 6072$$

$$a = 132$$

So the number of spoon sold by Shop D = 132

Number of forks sold by Shop D =  $220 - 132 = 88$

Let the number of spoons sold by Shop E = b

So the number of forks sold by Shop E =  $200 - b$

So according to question:  $30b + 80 \times (200 - b) = 9750$

$$30b + 16000 - 80b = 9750$$

$$50b = 6250$$

$$b = 125$$

So the number of spoons sold by Shop E = 125

Number of forks sold by Shop E =  $200 - 125 = 75$

	Number of spoons sold	Number of forks sold
Shop A	90	60
Shop B	90	90
Shop C	120	40
Shop D	132	88
Shop E	125	75

**26.** Revenue generated by Shop D by selling 132 spoons =  $132 \times 24 = \text{Rs. } 3,168$

Revenue generated by Shop D by selling 88 forks =  $88 \times 70 = \text{Rs. } 6,160$

So, the desired difference =  $6160 - 3168 = \text{Rs. } 2,992$

Hence, option b.

**27.** Average revenue generated =  $(4950 + 6300 + 9750)/3 = 21000/3 = \text{Rs. } 7,000$

Hence, option a.

**28.** Desired percentage =  $\{(90 - 60)/60\} \times 100 = 50\%$

Hence, option d.

**29.** Desired ratio =  $125:75 = 5:3$

Hence, option c.

**30.** Number of spoons sold by Shop F =  $1.25 \times 120 = 150$

Number of forks sold by Shop F =  $1.50 \times 40 = 60$

So, the total revenue generated by Shop F =  $150 \times 18 + 60 \times 65 = 2700 + 3900 = \text{Rs. } 6,600$

6,600

Hence, option d.