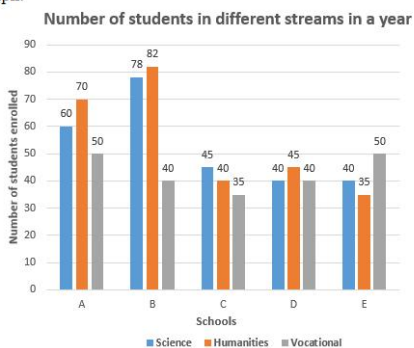


**Q.1** 24% of Reena's salary is equal to 38% of Sunita's salary. Veena's salary is two-third of the total salary of Reena and Sunita. If Veena's salary is ₹62,000, then Sunita's salary is:

- Ans**
- 1. ₹32,000
  - 2. ₹38,000
  - 3. ₹35,000
  - 4. ₹36,000

Question ID : **6549787490**  
 Status : **Answered**  
 Chosen Option : **4**

**Q.2** The number of students enrolled in different streams at Senior Secondary level in five schools is shown in the given bar graph.



What is the total number of students enrolled in the Science stream in all the schools?

- Ans**
- 1. 268
  - 2. 263
  - 3. 267
  - 4. 257

Question ID : **6549788516**  
 Status : **Answered**  
 Chosen Option : **2**

**Q.3** A man invests an amount of ₹1,05,750 at simple interest in the name of his son, daughter and his wife in such a way that they get the same interest after 3, 4 and 5 years, respectively. If the rate of interest is 5% per annum, then the amount invested for the wife is:

- Ans**
- 1. ₹25,000
  - 2. ₹28,000
  - 3. ₹27,000
  - 4. ₹30,000

Question ID : **6549787493**  
 Status : **Not Attempted and Marked For Review**  
 Chosen Option : --

**Q.4** Two circles with centres O and P and radii 17 cm and 10 cm, respectively, intersect each other at A and B. The length of the common chord AB is 16 cm. What is the perimeter of the triangle OAP (in cm)?

- Ans**
- 1. 48
  - 2. 25
  - 3. 33
  - 4. 40

Question ID : 6549788505  
 Status : Answered  
 Chosen Option : 1

**Q.5** If a triangle ABC is right-angled at A, then what is the value of  $\sin \frac{B+C}{2} \cos \frac{B+C}{2}$ ?

- Ans**
- 1.  $\frac{1}{2}$
  - 2.  $\frac{\sqrt{3}}{4}$
  - 3.  $\sqrt{2}$
  - 4.  $\frac{1}{4}$

Question ID : 6549788513  
 Status : Answered  
 Chosen Option : 1

**Q.6** The sum of all the three sides of an equilateral triangle is  $15\sqrt{3}cm$ . The height of the triangle is:

- Ans**
- 1. 7 cm
  - 2. 8 cm
  - 3. 7.5 cm
  - 4. 9 cm

Question ID : 6549787496  
 Status : Answered  
 Chosen Option : 3

**Q.7** Two equal circles of radius 8 cm intersect each other such that each passes through the centre of the other. The length of the common chord is:

- Ans**
- 1.  $8\sqrt{2}cm$
  - 2.  $8\sqrt{3}cm$
  - 3. 8 cm
  - 4.  $4\sqrt{3}cm$

Question ID : 6549787494  
 Status : Answered  
 Chosen Option : 2

Q.8 If  $x + \frac{1}{x} = \sqrt{13}$ , then one of the values of  $x^3 - \frac{1}{x^3}$  is :

- Ans
- 1.  $4\sqrt{11}$
  - 2. 36
  - 3. 32
  - 4.  $4\sqrt{13}$

Question ID : 6549788510  
Status : Answered  
Chosen Option : 2

Q.9 In  $\triangle ABC$ ,  $AC = BC$ , and the length of the base  $AB$  is 10 cm. If  $CG = 8$  cm, where  $G$  is the centroid, then what is the length of  $AC$ ?

- Ans
- 1.  $\sqrt{91}$  cm
  - 2. 15 cm
  - 3. 12 cm
  - 4. 13 cm

Question ID : 6549788507  
Status : Not Answered  
Chosen Option : --

Q.10 If  $x^2 + \frac{1}{x^2} = 83$ ,  $x > 0$ , then the value of  $x^3 - \frac{1}{x^3}$  is:

- Ans
- 1. 756
  - 2. 675
  - 3. 746
  - 4. 576

Question ID : 6549787498  
Status : Answered  
Chosen Option : 1

Q.11 If the nine-digit number '8475639AB' is divisible by 99, then what is the value of  $A$  and  $B$ ?

- Ans
- 1.  $A = 3, B = 9$
  - 2.  $A = 4, B = 6$
  - 3.  $A = 4, B = 8$
  - 4.  $A = 5, B = 3$

Question ID : 6549787501  
Status : Answered  
Chosen Option : 3

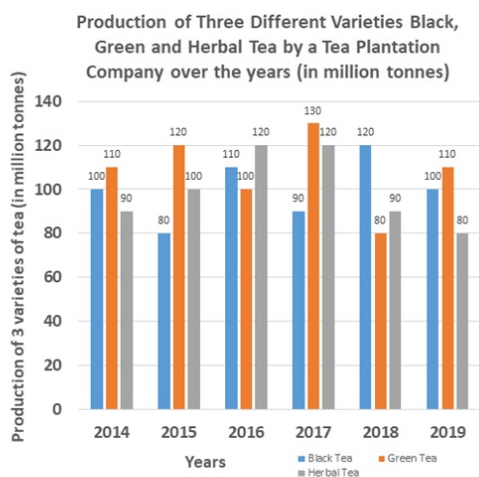
**Q.12** A, B, C and D are four positive numbers such that A is  $\frac{3}{4}$  times of B, B is  $\frac{4}{5}$  times of C, and C is  $\frac{3}{8}$  times of D. If the average of 4 times of A and 7 times of D is 316, then the average of all the four numbers A, B, C and D is:

- Ans**
- 1. 38
  - 2. 36
  - 3. 34
  - 4. 28

Question ID : **6549787488**  
 Status : **Not Answered**  
 Chosen Option : --

**Q.13** Study the given bar graph and answer the question that follows.

A tea plantation company produces three varieties of tea—black tea, green tea and herbal tea. The production of three varieties (in million tonnes) over a period of six years from 2014 to 2019, has been shown in the bar graph here. The X-axis represents the years and the Y-axis displays the production of the three varieties in million tonnes.



The average production of black tea in 2014, 2015 and 2018 is how much more or less (in million tonnes) than the average production of green tea in 2016, 2017 and 2019?

- Ans**
- 1. Less, 12.33
  - 2. Less, 13.33
  - 3. More, 13.33
  - 4. More, 12.33

Question ID : **6549789124**  
 Status : **Answered**  
 Chosen Option : 3

**Q.14** If  $\sec\theta - \operatorname{cosec}\theta = 0$  and  $\theta$  is an acute angle, then what is the value of  $\sec^2\theta + \operatorname{cosec}^2\theta$ ?

- Ans**
- 1. 2
  - 2. 0
  - 3. 1
  - 4. 4

Question ID : **6549788515**  
 Status : **Answered**  
 Chosen Option : 4

**Q.15** A car takes 50 minutes to cover a certain distance at a speed of 54 km/h. If the speed is increased by 25%, then how long will it take to cover three-fourth of the same distance?

- Ans**
- 1. 25 minutes
  - 2. 35 minutes
  - 3. 30 minutes
  - 4. 40 minutes

Question ID : 6549787486  
Status : Answered  
Chosen Option : 3

**Q.16** What will be the selling price of an article if two successive discounts of 15% and 12% are offered on its marked price of ₹25,500?

- Ans**
- 1. ₹19,074
  - 2. ₹18,615
  - 3. ₹25,041
  - 4. ₹21,165

Question ID : 6549788499  
Status : Answered  
Chosen Option : 1

**Q.17** Anu can complete a piece of work in 22 days. Shama is 60% more efficient than Anu. How many days does Shama alone take to complete the same piece of work?

- Ans**
- 1.  $36\frac{2}{3}$
  - 2.  $35\frac{1}{3}$
  - 3.  $13\frac{1}{5}$
  - 4.  $13\frac{3}{4}$

Question ID : 6549788495  
Status : Answered  
Chosen Option : 3

**Q.18** A rectangle with perimeter 50 cm has its sides in the ratio 1 : 4. What is the perimeter of a square whose area is the same as that of the rectangle?

- Ans**
- 1. 45 cm
  - 2. 40 cm
  - 3. 50 cm
  - 4. 36 cm

Question ID : 6549788497  
Status : Answered  
Chosen Option : 2

**Q.19** The given pie charts represent the distribution of candidates who enrolled for a bank clerical examination and the candidates (out of those enrolled) who passed the examination, from five different institutes P, Q, R, S and T. Study the pie charts and answer the question that follows.

(i) Total number of candidates who enrolled for the examination from five institutes = 5500

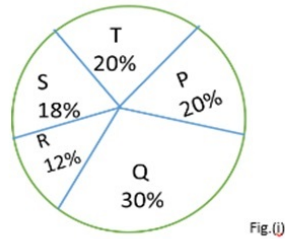


Fig. (i)

(ii) Total number of candidates who passed the examination from five institutes = 3300

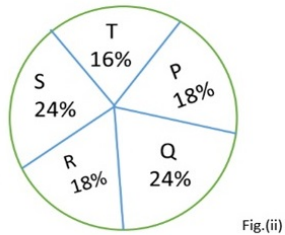


Fig. (ii)

Which institute(s) has/have the highest percentage of candidates passed to the candidates enrolled?

- Ans**
- 1. P
  - 2. S
  - 3. Q and T
  - 4. R

Question ID : 6549787509  
 Status : Answered  
 Chosen Option : 2

**Q.20** Simplify the following expression.

$$5\frac{1}{3} \div \left[ 7 - 3 \div \left( 1 - \frac{1}{4} \right) \times \frac{2}{3} + 1 \right] - 3 \div 1 + 2$$

- Ans**
- 1. -4
  - 2.  $\frac{7}{41}$
  - 3. 15
  - 4. 0

Question ID : 6549788512  
 Status : Answered  
 Chosen Option : 4

**Q.21** Two numbers A and B are in the ratio 13 : 17. If A is increased by 15% and B is increased by 30%, then the new ratio of A to B will be:

- Ans**
- 1. 21 : 31
  - 2. 21 : 29
  - 3. 23 : 34
  - 4. 23 : 33

Question ID : **6549787492**  
Status : **Answered**  
Chosen Option : **3**

**Q.22** If  $\tan A + \sec A = \frac{3}{2}$  and  $A$  is an acute angle, then the value of  $\frac{10 \cot A + 13 \cos A}{12 \tan A + 5 \operatorname{cosec} A}$  is:

- Ans**
- 1. 2
  - 2. 4
  - 3. 1
  - 4. 5

Question ID : **6549787504**  
Status : **Answered**  
Chosen Option : **3**

Q.23 Study the given bar graphs and answer the question that follows.

The bar graphs represent the amount invested in raw materials (in ₹ crore) and the sale of the products, by a textile company in the years 2007– 2012. The X-axis represents the years. The Y-axis represents the amount invested in raw materials (in ₹ crore) in figure 1 and sale of products in figure 2, respectively.



Figure 1

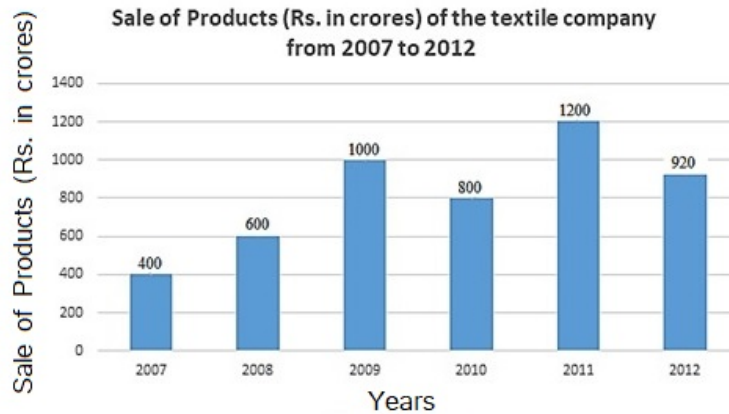


Figure 2

In which year was there a maximum percentage increase in the sales of products as compared to the previous year?

- Ans
- 1. 2010
  - 2. 2011
  - 3. 2009
  - 4. 2008

Question ID : 6549786801  
Status : Answered  
Chosen Option : 4



Q.24 If  $x^2 + (4 - \sqrt{3})x - 1 = 0$ , then what is the value of  $x^2 + \frac{1}{x^2}$  ?

- Ans
- 1.  $21 - 8\sqrt{3}$
  - 2.  $21 - 12\sqrt{3}$
  - 3.  $9 - 8\sqrt{3}$
  - 4.  $17 - 8\sqrt{3}$

Question ID : 6549788509  
Status : Answered  
Chosen Option : 4

Q.25 A shopkeeper sold an article for ₹3,750. If he had charged 24% less, even then he would have earned a profit of 14%.  
What is the original cost of the article?

- Ans
- 1. ₹2,850
  - 2. ₹2,717
  - 3. ₹2,500
  - 4. ₹3,289

Question ID : 6549788501  
Status : Answered  
Chosen Option : 3