Quantitative Aptitude

Directions (1 – 5): Study the following information carefully and answers the questions based on it.

AUniversity consists of 21,600 teachersteaching in different streams of the University namelyEngineering, Arts, Commerce, Science and Sports. The ratio of male to female teachers in theUniversity is 7:5 respectively. Number of male teachers in the Engineering stream in 2016, which is (__A%__) of the total number of maleteachers.In the Sports stream female teachers are 504 more than the male teachers from the Engineering stream,which accounts for(__B%__)of the total female teachers.

The ratio of males to females teaching in the Engineeringstream is 9:14. 600 female teachers teaches in the Commerce stream which is (__C%__) of the total number of female teachers teaches in the University. Number of male teachers teaches in the Science stream is 4851,which accounts for (__D%__) of the total number of male teachers teaches in the University. The number of female teachersteaching in the Sciencestream is 1/11th of the males teaching in the same stream.

The total number of teachersteaching in the Commerce stream department is 2565. Number ofmale teachersteaches in the Arts stream is 14 more than the number of female teachers teaches in Engineering stream and the number of maleteachers teaches in the Sports stream in the university are (__E%__) of total number of male teachers in the university.

1) Find the value of A?

a) 31%
b) 16%
c) 48%
d) 23%
e) None of these

2) Find the value of B?

a) 16%
b) 35%
c) 25%
d) 28%
e) None of these

3) Find the value of C?

a) 8 (3/4)%
b) 5 (2/3)%
c) 6 (2/3)%
d) 7 (7/9)%
e) None of these.

4) Find the value of D?

a) 27.5%
b) 16.5%
c) 44.5%
d) 38.5%
e) None of these

5) Find the value of E?

a) 18%
b) 44%
c) 32%

d) 25%
e) None of these

Directions (06 - 10): Study the following information carefully and answer the questions given below.

There are five shops. Each shop sold a different number of pens. Price of pens in each shop is different. Shop A sold __(X)___ number of pens and Price of each pen is __(I)__ which is equal to the numeric value of the number of pens sold in B. Total Price of all the pens sold in B is Rs.180. Price per pen in shop C is Rs. ___(J)___. C sold six pens more than A. Number of pens sold in shop D is __(W)___. Price of each Pen in shops D and E is the same i.e., Rs.12. Total price of all the pens in shops B and E is the same. Number of pens sold in shop E is 5 more and 5 less than the number of pens sold in shops A and D respectively. Total price of all the pens in shop A is half of the total price of all the pens in D. Total price of all the pens in C is Rs. ___(K)____. Price of each pen in shop C is 66.66% of the price of each pen in B.

6) Find the numeric value of X + I – J =.

a) 14
b) 13
c) 12
d) 11
e) 10

7) Number of pencils sold in shop A is double the number of pens sold in the same shop. If each pencil's price is Rs.4 then find the total price of all pencils in the shop.

a) 60
b) 40
c) 48
d) 80
e) 120

8) Total price of all pens sold in another shop F is Rs. K and the price of each pen is Rs.8. Find the number of pens sold in shop F?

a) 22
b) 20
c) 15
d) 16
e) None of these

9) Number of pencils sold in shop D is W and the price of each pencil is Rs. J/2. Find the total price of all the pencils sold in shop D.

a) 100
b) 120
c) 200
d) 80
e) None of these

10) Find the value of W% of K + X% of (I * J).

a) 44
b) 52
c) 40
d) 42
e) None of these

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Answer Key with Explanation

Directions (1 – 5):

Total number of teachers in the university = 21,600

Number of male teachers = 21,600 × 7/12 = 12,600

Number of female teachers = 21,600 × 5/12 = 9,000

Number of male teachers in Engineering = 2016

So, the percentage of male teachers in Engineering,

= 2016/12,600 × 100 =>**16% [Value of A]**

Number of female teachers in sports = 2016 + 504 => 2520

So, the percentage of female teachers in Sports,

= 2520/9000 × 100 =>**28% [Value of B]**

Number of female teachers in Engineering = 2016 × 14/9 => 3136

Number of female teachers in Commerce = 600

So, the percentage of female teachers in Commerce,

= 600/9000 × 100 =>**6 (2/3)% [Value of C]**

Number of male teachers inscience = 4851

So, the percentage of male teachers in science,

= 4851/12,600 × 100 =>**38.5% [Value of D]**

Number of female teachers in science = 4851 × 1/11 => 441

Number of female teachers in Arts = 9000 – (2520 + 3136 + 600 + 441)

= 9000 –6697 => 2303

Number of male teachers in Commerce = 2565 – 600 => 1965

Number of male teachers in Arts = 3136 + 14 => 3150

So, the percentage of male teachers in Arts,

= 3150/12,600 × 100 =>**25% [Value of E]**

Number of male teachers in Sports = 12,600 – (2016 + 4851 + 1965 + 3150)

= 12,600 –11,982 => 618

1) Answer: B

For question 11:

From the above explanation it is clear that,

The value of A = 16%

Hence, the required answer = **16%.**

2) Answer: D

From the above explanation it is clear that,

The value of B = 28%

Hence, the required answer = **28%.**

3) Answer: C

From the above explanation it is clear that,

The value of C = 6 (2/3)%

Hence, the required answer = **6(2/3)%.**

4) Answer: D

From the above explanation it is clear that,

The value of D = 38.5%

Hence, the required answer = **38.5%.**

5) Answer: D

From the above explanation it is clear that,

The value of E = 25%

Hence, the required answer = **25%.**

Directions (06 - 10):

Number of pens sold in shop E = 180/12 = 15

Number of pens sold in shop A = 15 – 5 = 10 = X

Number of pens sold in shop D = 15 + 5 = 20 = W

Total price of all pens sold in shop D = 20 * 12 = Rs.240

Total price of all pens sold in shop A = 240/2 = Rs.120

Price of each pen sold in shop A = 120/10 = Rs.12 = I

Number of pens sold in shop C = 10 + 6 = 16

Number of pens sold in shop B = 12

Price of each pen sold in shop B = 180/12 = Rs.15

Price of each pen sold in shop C = 15 * 66.66/100 = Rs.10 = J

Total price of all pens sold in shop C = 16 * 10 = Rs.160 = K

6) Answer: C

Required value = 10 + 12 – 10 = 12

7) Answer: D

So, the total price of all the pencils = 10 * 2 * 4 = Rs.80

8) Answer: B

Number of pens sold in shop F = 160/8 = 20

9) Answer: A

Total price of all pencils sold in shop D = 20 * 10/2 = Rs.100

10) Answer: A

Required value = 20% of 160 + 10% of 120 = 44