

- Q1 : The ages of the Vishal and Anand differ by 20 years. If 5 year ago, Anand's age be 5 times as old as vishal's , then their present ages, in years are:  
 a. 25, 5                      b. 30, 10                      c. 35, 15                      d. 50, 30
- Q2 : Aman arranges to pay off a debt of Rs 3600 by 40 annual instalments which are in A.P. When 30 of the instalments are paid, he dies leaving one-third of the debt unpaid. The value of the 8<sup>th</sup> instalment is:  
 a. 35                      b. 50                      c. 65                      d. 70
- Q3 : Two spinning machines A and B can together produce 3,00,000 m of cloth in 10 hour, if machine B alone can produce the same amount of cloth in 15 hour, then how much cloth can machine A produce alone in 10 hour?  
 a. 200,000                      b. 100,000                      c. 150,000                      d. 50,000
- Q4 : A, B, C and D play a game of cards. A says to B "If I give you 8 cards, you will have as many as C has and I shall have 3 less than what C has. Also if I take 6 cards from C, I shall have twice as many as D has". If B and D together have 50 cards, how many cards have A got?  
 a. 40                      b. 37                      c. 23                      d. 27
- Q5 : The age of Chetan in 2002 was  $\frac{1}{90}$  of his birth year. What is his age in 2006?  
 a. 30                      b. 28                      c. 26                      d. 22
- Q6 : Ram's age was square of number last year and it will be cube of a number next year. How long must he wait before his age is again a cube of a number?  
 a. 10 years                      b. 38 years                      c. 39 years                      d. 46 years
- Q7 : In an objective examination of 90 questions, 5 marks are allotted for every correct answer and 2 marks are deducted for every wrong answer. After attempting all the 90 questions a students got a total of 387 marks. Find the number of questions that he attempted wrong.  
 a. 9                      b. 10                      c. 11                      d. 12
- Q8 : Naveen purchased two oranges, 3 apples and 5 bananas and paid Rs 40. Had Naveen purchased 3 oranges, 5 apples and 9 bananas, He would have to pay Rs 64. Gagan demanded only 1 orange, 1 apple and 1 banana. If Naveen purchased only what was demanded by Gagan, then how much would he have paid (in Rs)?  
 a. 16                      b. 28                      c. 36                      d. 24
- Q9 : Bohit has 1044 candles. After burning, he can make a new candle from 9 stubs left behind. Find the maximum number of candles that can be made.  
 a. 116                      b. 120                      c. 130                      d. 140
- Q10 : Jay has with him a total of Rs 29 in 5-rupee and 2-rupee denominators. The number of 5-rupee notes in one-half of one less than the number of 2-rupee notes. How many 5-rupee notes and 2-rupee notes does Jay have respectively?  
 a. 7, 3                      b. 3, 7                      c. 2, 5                      d. 5, 2
- Q11: Vishal's age is  $\frac{1}{6}$ th of her father's age. Vishal's father's age will be twice of Vimal's age after 10 years. If Vimal's eighth birthday was celebrated 2 years before, then what is Vishal's present age?  
 a. 7 years                      b. 8 years                      c. 6 years                      d. 5 years

Q12 : A, B, C and D each had some money. D doubled the amounts with the others. C then doubled the amounts with the others. B then doubled the amounts with the others. A then doubled the amounts with the others. At this stage, each of them has Rs 80. Find the initial amount with C (in Rs).

- a. 75                      b. 80                      c. 95                      d. 85

Q13 : In a certain game, each player scores either 2 points or 5 points. If  $n$  players score 2 points and  $m$  players score 5 points and the total number of points scored is 50, what is the least possible positive difference between  $n$  and  $m$ ?

- a. 5                      b. 3                      c. 1                      d. 2

Q14 : Aman purchased 40 fruits; apples and oranges for Rs 17. Had he purchased as many as oranges as apples and as many apples as oranges, he would have paid Rs 15. Find the cost of one pair of an apple and an orange.

- a. 70 paise                      b. 60 paise                      c. 80 paise                      d. One rupee

Q15 : 21 pencils and 29 pens cost Rs 79. But if the number of pencils and pens were interchanged, the cost would have reduced by Rs 8. Find the cost of each pen in rupees.

- a. 1                      b. 2                      c. 3                      d. 4

## ANSWERS

Ans 1 : Option b

Let Anand's and Vishal's present age be  $x$  and  $y$ .

Then,  $x - y = 20$  and  $(x - 5) = 5(y - 5)$

On solving both equation we get:  $X = 30$  and  $y = 10$

Ans 2 : Option c

Let the first instalment be 'a' and the common difference between any two consecutive instalments be 'd'

Using the formula for the sum of an A.P. =  $S(n) = (n/2) * (2a + (n-1)d)$

$$3600 = (40/2) [2a + (40-1)d] \Rightarrow 180 = 2a + 39d \text{ ---(i)}$$

$$2400 = (30/2) (2a + (30-1)d) \Rightarrow 160 = 2a + 29d \text{ ---- (ii)}$$

On solving both the equations we get:  $d=2$  and  $a=51$

Value of 8th instalment =  $51 + (8-1)2 = \text{Rs } 65$

Ans 3 : Option b

Machines A and B together will produce 30,000 m of cloth in 1 hour.

Machine B alone can produce 20,000 m cloth in 1 hour.

Therefore, Machine A can produce 10,000 m cloth in 1 hour.

So, in 10 hour Machine A can produce 1,00,000 m of cloth.

Ans 4 : Option d

$$B + 8 = C$$

$$A - 8 = C - 3$$

$$A + 6 = 2D$$

$$B + D = 50$$

On solving these equations, we get  $A = 40$

Ans 5 : Option C

Let age of Chetan in 2002 be  $x$ .

$$\text{So, } (2002 - x)/90 = x \Rightarrow x = 22$$

Thus, Chetan's age in 2006 =  $22 + 4 = 26$  yrs

Ans 6 : Option b

For this kind of question, the only set of values will be 25 (a square) and 27 (a cube). So, present age is 26 years. Next cube will be 64. So, required time is  $=(64-26)= 38$  years

Ans 7 : Option a

Let the wrong questions be  $x$ .

$$\text{Thus, } (90-x) * 5 - x*2 = 387 \Rightarrow x= 9$$

Ans 8 : Option a

Let the cost of each orange, apple and banana be  $o$ ,  $a$  and  $b$  respectively.

$$\text{Given, } 2(o)+3a+5b=40 \text{ ----- (i) and } 3(o)+5a+9b=64 \text{----- (ii)}$$

$$\text{From } 2(\text{i}) - (\text{ii}): \Rightarrow o + a + b = 16$$

Ans 9 : Option c

Since, one candle is made from 9 stubs. Therefore, 116 candles will be made from 1044 stubs

From 116 candles, 12 candles can be made with 8 stubs left.

Now total stubs left  $= (12+8) = 20$  out of which two candles can be made with two stubs left.

$$\text{Thus, Maximum number of candles that can be made } = (116+12+2) = 130$$

Ans 10 : Option b

Let  $x$  be the 5-rupee notes and  $y$  be the number of 2-rupee notes.

$$5x+2y=29 \text{ ----- (i) and } 2x-y=-1 \text{ ----- (ii)}$$

On solving both the equation we get:  $x = 3$  and  $y = 7$

Ans 11 : Option d

Vimal's present age  $=8+2=10$  year. Then, Vishal's Father's age after 10 years  $=(10+10)\times 2=40$  years.

Thus, Vishal's Father's present age = 30 years.

$$\text{Vishal's present age } =(1/6) * 30 = 5 \text{ years.}$$

Ans 12 : Option d

Before doubling, the amounts B, C and D, each of them must have had  $(80/2) = 40$

A must have then had Rs  $80+ Rs 120 = Rs 200$ .

Similarly, we can work out the amounts with each of them before the other

doubled the amounts.

The results are summarized below:

Finally	----->	A(80), B(80), C(80), D(80)
Before A doubles	----->	A(200), B(40), C(40), D(40)
Before B doubles	----->	A(100), B(180), C(20), D(20)
Before C doubles	----->	A(50), B(90), C(170), D(10)
Before D doubles	----->	A(25), B(45), C(85), D(165)

Ans 13 : Option c

The given equation is as :  $2n+5m=50$

Thus, Possible values of n and m are (25,0),(10,6),(20,2),(15,4),(5,8)

Hence, least difference between 5 and 8 is 3

Ans 14 : Option c

Aman buys x apples at the rate of m and y oranges at n.

Thus,  $x+y=40$  ----- (i) and  $mx+ny=17$  ----- (ii)

On solving both the equations we get:  $(m+n)(x+y)=17+15$

=  $(m+n) = 32/40 = 0.8 \Rightarrow 80$  paise.

Ans 15 : Option b

Let the cost of each pencil be Rs x and that of each pen be y.

$21x+29y=79$  ----- (i) and  $29x+21y=71$  ----- (ii)

On solving both equation we get:  $y= 2$