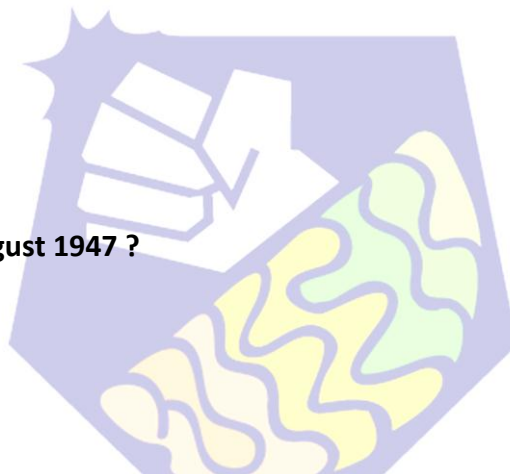# Daily Dose of Aptitude-4-07-2019

1.A bag contains 50 P, 25 P and 10 P coins in the ratio 5: 9: 4, amounting to Rs. 206. Find the number of coins of each type respectively.

a. 360, 160, 200

b. 160, 360, 200

c. 200, 360,160

d. 200,160,300

2. In an election between two candidates, one got 55% of the total valid votes, 20% of the votes were invalid. If the total number of votes was 7500, the number of valid votes that the other candidate got, was:

a. 2500

b. 2700

c. 2900

d. 3100

3. What was the day on 15th august 1947 ?

a. Friday

b. Saturday

c. Sunday

d. Thursday

4. If each side of a square is increased by 25%, find the percentage change in its area?

a. 65.25

b. 56.25

c. 65

d. 56

5. A grocer has a sale of Rs 6435, Rs. 6927, Rs. 6855, Rs. 7230 and Rs. 6562 for 5 consecutive months. How much sale must he have in the sixth month so that he gets an average sale of Rs, 6500 ?

a. 4991

b. 5467

c. 5987

d. 6453

6. At what time between 4 and 5 o'clock will the hands of a watch point in opposite directions?

a. 54 past 4

b. (53 + 7/11) past 4

c. (54 + 8/11) past 4

d. (54 + 6/11) past 4

7. Three number are in the ratio of 3 : 4 : 5 and their L.C.M. is 2400. Their H.C.F. is:

a. 40

b. 80

c. 120

d. 200

8. If selling price is doubled, the profit triples. Find the profit percent ?

a.100%

b.200%

c.300%

d.400%

9. Two numbers are respectively 20% and 50% more than a third number. The ratio of the two numbers is:

a. 2:5

b. 3:5

c. 4:5

d. 5:4

10. If the diagonal of a rectangle is 17cm long and its perimeter is 46 cm. Find the area of the rectangle.

a. 110

b. 120

c. 130

d. 140

Answers and Solutions:

Ans 1: c

Sol: let ratio be x.

Hence no. of coins be 5x ,9x , 4x respectively

Now given total amount = Rs.206

=> (0.50)(5x) + (0.25)(9x) + (0.10)(4x) = 206

we get x = 40

=> No. of 50p coins = 200

=> No. of 25p coins = 360

=> No. of 10p coins = 160

Ans 2: b

Sol: Total number of votes = 7500

Given that 20% of Percentage votes were invalid

=> Valid votes = 80%

Total valid votes = 7500*(80/100)

1st candidate got 55% of the total valid votes.

Hence the 2nd candidate should have got 45% of the total valid votes

=> Valid votes that 2nd candidate got = total valid votes x (45/100)

=7500*(80/100)*(45/100) = 2700

Ans 3: a

Sol: 5 Aug, 1947 = (1946 years + Period from 1.1.1947 to 15.8.1947)

Odd days in 1600 years = 0

Odd days in 300 years = 1

46 years = (35 ordinary years + 11 leap years) = (35 x 1 + 11 x 2)= 57 (8 weeks + 1 day) = 1 odd day

Jan. Feb. Mar. Apr. May. Jun. Jul. Aug

(31 + 28 + 31 + 30 + 31 + 30 + 31 + 15) = 227 days = (32 weeks + 3 days) = 3 odd days.

Total number of odd days = (0 + 1 + 1 + 3) = 5 odd days.

Hence, as the number of odd days = 5 , given day is Friday.

Ans 4: b

Sol: let each side of the square be a , then area = a^2

As given that The side is increased by 25%, then

New side = 125a/100 = 5a/4

New area = $(5a/4)^2$

Increased area= $25a^2/16 - a^2$

Increase %={$[9a^2/16]/a^2$}*100 % = 56.25%

Ans 5: a

Sol: Total sale for 5 months = Rs. (6435 + 6927 + 6855 + 7230 + 6562) = Rs. 34009.

Required sale = Rs.[(6500 x 6) - 34009]

= Rs. (39000 - 34009)

= Rs. 4991.

Ans 6: d

Sol: 4 o'clock, the hands of the watch are 20 min. spaces apart.

To be in opposite directions, they must be 30 min. spaces apart.

Minute hand will have to gain 50 min. spaces.

55 min. spaces are gained in 60 min

50 min. spaces are gained in (60/55)×50 min. or 54(6/11)

Required time = 54(6/11) min. past 4.

Ans 7: a

Sol: Let the numbers be 3x, 4x and 5x.

Then, their L.C.M. = 60x.

So, 60x = 2400 or x = 40.

 The numbers are (3 x 40), (4 x 40) and (5 x 40).

Hence, required H.C.F. = 40.

Ans 8: a

Sol: Let the C.P be Rs.100 and S.P be Rs.x, Then

The profit is (x-100)

Now the S.P is doubled, then the new S.P is 2x

New profit is (2x-100)

Now as per the given condition;

=> 3(x-100) = 2x-100

By solving, we get

x = 200

Then the Profit percent = (200-100)/100 = 100

Hence the profit percentage is 100%

Ans 9: c

Sol: Let the third number be x.

Then, first number = 120% of x =120x/100 = 6x/5

Second number =150% of x = 150x/100 = 3x/2

Ratio of first two numbers = 6x/5 : 3x/2 = 12x : 15x = 4 : 5

Ans 10: b

Sol: let length = x and breadth = y then

2(x+y) = 46   =>   x+y = 23

$x^2+y^2 = 17^2 = 289$

now $(x+y)^2 = 23^2$

=> $x^2+y^2+2xy= 529$

=> 289+ 2xy = 529

=> xy = 120

area = xy = 120 sq.cm