Daily Dose of Aptitude-28-06-2019

1.The diameter of the base of a cylindrical drum is 35 dm and the height is 24 dm. It is full of kerosene. How many tins each of size 25cm × 22cm × 35cm can be filled with kerosene from the drum? (use π=22/7)

(a) 1200
(b) 1020
(c) 600
(d) 120

2. An electronic device makes a beep after every 60 sec. Another device makes a beep after every 62 sec. They beeped together at 10 a.m. The time when they will next make a beep together at the earliest, is?

(a)10:28 am
(b)10:30 am
(c)10:31 am
(d)10:35 am

3.A and B can do a piece of work for Rs 1560. Find the difference between the wages of C and B for the same work If A can do the work in 12 days and B can do the same work in 8 days and with the help of C, A and B can do the same work in 2 days ?(Total wages in both the case is same)

(a) Rs 520
(b) Rs 223
(c)Rs 423
(d) Rs 724

4. There are 6 filling pipes each capable of filling a cistern alone in 16 minutes and 4 emptying pipes each capable of emptying a cistern alone in 20 minutes. All pipes are opened together and as a result, tank fills 28 litres of water per minute. Find the capacity of the tank.

(a)145 l
(b)160 l
(c)240 l
(d)180 l

5. A sum of money amounts to Rs. 9800 after 5 years and Rs. 12005 after 8 years at the same rate of simple interest. The rate of interest per annum is:

(a) 12 %
(b) 13 %
(c) 8 %
(d) 12.5 %

6. Busses start from a bus terminal with a speed of 20 km/hr at intervals of 10 minutes. What is the speed of a man coming from the opposite direction towards the bus terminal if he meets the buses at intervals of 8 minutes?

(a)3 km/hr
(b)4 km/hr
(c)5 km/hr
(d)7 km/hr

7. The distance between two cities A and B is 330km. A train starts from A at 8 (a)m. and travels towards B at 60 km/hr. Another train starts from B at 9 (a)m. and travels towards A at 75 km/hr. At what time do they meet?

(a)10 am.
(b)10 : 30 am.
(c)11 am.
(d)11 : 30 am.

8. The sum of present ages of father and his son is 57 years. 6 years ago, the father was 4 times as old as his son at that time. The present age of son is:

(a) 12 years
(b) 9 years
(c) 15 years
(d) 16 years

9. The ratio of the number of boys to that of girls in a school is 4 : 1. If 75% of boys and 70% of the girls are scholarship holders, then the percentage of students who do not get scholarship is :

(a) 50%
(b) 28%
(c) 75%
(d) 26%

10. The average age of Rinku and Radhika is 18 years. When Rita replaces Radhika, the average age is increased by 1 and when Radhika replaces Rinku the average age becomes 17 years. What is the age of Rita?

(a) 20 years
(b) 18 years
(c) 16 years
(d) 22 years

ANSWERS AND SOLUTIONS:

Ans 1: (a)
Sol. Number of tins=Volume of cylindrical drum/Volume of a tin
= $\pi r^2 h/lbh$
= (22 x 350 x 350 x 240)/(7 x 2 x 2 x 25 x 22 x 35)
= 1200 times are required

Ans 2: (c)
Sol: L.C.M. of 60 and 62 seconds is 1860 seconds
1860/60 = 31 minutes
They will beep together at 10:31 a.m.

Ans 3: (a)

Sol: Days Capacity

A : 12 2

B : 8 3 {LCM of all:24}

A+B+C: 2 12

Capacity of c=12-5

=7

Ratio of capacityA:B:C=2:3:7

Difference of ways of C & B is = 4/12 x 1560

= Rs 520

Ans 4: (b)

Sol: Cistern filled in one min

6/16 - 4/20 = 7/40

Cistern filled in = 40/7 min

Cistern capacity = = 40/7 X 28 = 160 litres.

Ans 5: (a)

Sol: S.I. for 3 years = Rs. (12005 - 9800) = Rs. 2205.

S.I. for 5 years= Rs. 3675

Principal = Rs. (9800 - 3675) = Rs. 6125

Hence Rate = {(100 × 3675) / 6125 × 5} % = 12 %

Ans 6: (c)

Distance covered in 10 minutes at 20 kmph = distance covered in 8 minutes at (20+x) kmph

20× 10/60=8/60(20+x)

200 = 160 + 8x

8x = 40

x=40/8=5 kmph.

Ans 7: (c)

Distance travelled by first train in one hour

= 60 x 1 = 60 km

Therefore, distance between two train at 9 a.m.

= 330 – 60 = 270 km

Now, Relative speed of two trains = 60 + 75 = 135 km/hr

Time of meeting of two trains =270/135=2 hrs.

Therefore, both the trains will meet at 9 + 2 = 11 A.M.

Ans 8 (c)

Sol.

Let son's present age = p years+. Present age of father = (57 — p) years

ATQ,

(57 - p—6}=4 (p-6)

=>51-p=4p-24

=> p=15 years

Ans 9: (d)

Sol. Let the number of boys = 400

Let the number of girls = 100

Total number of students who do not get scholarship
= 400 x 25/100 + 100 x 30/100
= 100 + 30 = 130
Required percentage
= 130/500 x 100 = 26%

Ans 10: (b)
Sol.
Let the ages of Rinku, Radhika and Rita are x, y and z respectively.
X + y=2x18
=> x+y=36 ..(i)
And x+z=2x19
=> x+z=38 ..(ii)
And y+z=2x17
=> y+z =34 ..(iii)
Age of Rita
=1/2 (36 + 38 + 34) - 36
= 54-36
= 18 years