Statement Sheet Test {Home Work}

1. A and B can do a piece of work in 40 days. B and C can complete the same work in 30 days. A alone can do the work in 60 days. Find the number of days taken by A, B and C together to complete the work.
(a) 20 days (b) 25 days (c) 30 days (d) 35 days (e) None of these

2. A shopkeeper marks his goods by 25% and gives a discount of 40% thereby he loses Rs 7200. Find the sum of cost price and marked price (in Rs).
(a) Rs 64,800 (b) Rs 72,400 (c) Rs 62,500 (d) Rs 70,500 (e) None

3. 2 years hence, the ratio of the ages of A and B will be 5 : 7. The ratio of present ages f B and C is 2 : 3. If the present age of A is 28 years. Find the average of present ages of A, B, C and D, if the age of D is 8 years less than that of A.
(a) 30 years (b) 39 years (c) 35 years (d) 37 years (e) None

4. In a class of 75 students, the ratio of girls to Boys is 8:7. The average weight of the girls is 48 kg and that of the boys is 57 kg. What is the average weight of the whole class?
a. 52.2 b. 51.5 c. 53.2 d. 56.8 e. None

5. Train A of length 150 m can cross a platform of length 290m in 20 second. the ratio of speed train A and Train B is 2: 3. Then find The length of train B if train B can cross a pole in 9 seconds.
a. 250m b. 215m c. 297m d. 305m e. None

6. If a table is sold at gain of 25% instead at a gain of 11%, then the seller gets rs 175more. What is cost price of that table?
a. 1250 b. 1500 c. 1400 d. 1700 e. None

7. A sum of money is to be distributed among A,B,C,D in the proportion of 2:5:4:3 . If B gets 1250 more than D, then find total money which is distribute among all.
a. 7750 b. 8750 c. 6580 d. 9580 e. None

8. The ratio of the milk to water in a mixture is 4 : 3. 21 liter of mixture is taken out and 8 liter of milk and 14 liter of water is added in mixture, so that new ratio of milk to water becomes 320 : 17, then find initial quantity of milk in the mixture.
a. 84 liters b. 35 liters c. 63 liters d. 80 liters e. 72 liters

9. A alone can do 40% of work in 8 days and B alone can do 30% of work in 12 days. If efficiency of C is 50% more than A, then find in how many days A, B and C together will be completed 90% of work?
a. 5 days b. 8 days c. 12 days d. 6 days e. 4 days

10. A man goes from a place A to B at a speed of 12 km/hr and returns from B to A at a speed of 18 km/hr. What is the average speed for the whole journey?
a. 12 km/hr b. 24 km/hr c. 14 km/hr d. 14 2/5 km/hr e. 15 2/5 km/hr

11. A boat covers 12 km upstream and 18 km downstream in 3 hours while it covers 36 km upstream and 24 downstream in 6 1/2 hours, what is the speed of stream ?
a. 5 km/hr b. 4 km/hr c. 6 km/hr d. 2 km/hr e. 8 km/hr

12. P is 25% more efficient than Q and he completes a task in 36 days. If R alone complete the same task in 30 days, then find all three together can complete the same task in how many days?
a. 15 days b. 18 days c. 8 days d. 14 days e. 12 days

13. A shopkeeper marked up an article 60% above cost price and sell it at rs.960 after allowing discount of 25%. If profit of shopkeeper is rs.160, then find the marked price of article?
a. 1420 b. 1200 c. 1140 d. 1540 e. 1280

14. Ratio of investment of A, B and C is 4 : 6 : 9 respectively. At the end of a year, ratio of profit share of A, B and C is 4 : 5 : 6 respectively. If A has invested for a year then find the sum of period of investment of B and C?
a. 20 months b. 18 months c. 14 months d. 24 months e. 28 months

15. Ratio between income and expenditure of Sujit increased by 20% and 33.33% in two successive years and expenditure remains same, then his saving is increased by rs.18000. What is his new income?
a. 45000 b. 38000 c. 65000 d. 32000 e. 48000

16. 375 ml of mixture contains milk and water in the ratio of 16 : 9 respectively. If x ml of water is added into the mixture then the ratio of milk to water in the resultant mixture becomes 3 : 2, find the value x.
a. 30 b. 25 c. 35 d. 40 e. 45

17. A and B alone can complete a piece of work in 24 days and 20 days respectively. If efficiency of C is 60% more than A, then find in how many days C complete the work?
a. 15 days b. 17 days c. 20 days d. 25 days e. 30 days

18. P and Q started a partnership business with investment of rs.15000 and rs.12000 for 8 months and 6 months respectively. If total profit of the business is 6400, then what is profit share of P ?
a. 3200 b. 4450 c. 3800 d. 4200 e. 4000

19. A man invested rs. 25000 at the rate of 20% in compound interest for 1 year. How much amount he received if he invested for compounded half yearly.
a. 42000 b. 22000 c. 30250 d. 28140 e. 34400

20. In a 100 m race, A can give B 10 m and C 28 m. In the same race B can give C:
a. 18 m b. 20 m c. 27 m d. 9 m

21. Rohit gives 35% of her monthly salary to his mother, 20% of remaining he spend on house bills and he donated 5% of the remaining in hospital, then he was left with only Rs. 494. What is the annual salary of Rohit?
(A) Rs. 15000 (B) Rs. 14000 (C) Rs. 10000 (D) Rs. 12000 (E) None of these

(**1)A**
(A + B) – 40 days
(B + C) – 30 days
A – 60 days
Total work = 120 units
A's 1 day work = 2
B's 1 day work = 1
C's 1 day work = 3
Required days= 120/6 = 20 days
(2) A
Required sum = 7200/30 * 270 = Rs 64800
(3) d
= 28 years
B = 40 years
C = 60 years
D = 20 years
Average age of A, B, C and D = 148/4 = 37 years
4. a
Average weight of the Class
= (48× 8 + 57× 7)/15
=(384+399)/15
= 52.2 kg
5.c
Speed of A=(290+150)/20=22m/s
Speed of B=33m/s
Length of B=15×33
=297m
6.a
CP=100x
Sp=125xNew sp=111x
Difference=14x=175
X=12.5
100x=1250
7.b
2x=1250
14x=1250/2×14
=8750
(AZ 232)
8. Option A
Let quantity of milk and water in the mixture = 4x and 3x respectively
(4x – 21 * 4/7 + 8)/(3x – 21 * 3/7 + 14) = 20/17
4x – 4/3x + 5 = 20/17
x = 21
Initial quantity of milk in the mixture = 4x = 4 * 21 = 84 liters
9. Option D
Total days required to complete the work by A = 8/40 * 100 = 20
total days required to complete the work by B = 12/30 * 100 = 40
LCM of 20 and 40 = 40
efficiency of A = 40/20 = 2
efficiency of B = 40/40 = 1
efficiency of C = 2 * 150/100 = 3
days required = 40/6 * 90/100 = 6 days
10. Option D
Average speed = 2xy /x + y
= 2 * 12 * 18/12 + 18 = 14 2/5 km/hr
11. Option D
12/x – y + 18/x + y = 3
36/x – y + 24/x + y = 13/2
let x – y = a, x + y = b
12/a + 18/b = 3
36a + 24/b = 13/2
By multiplying '3' in equation (i)
36/a + 54/b = 9
36/a + 24/b = 13/2
30/b = 9 – 13/2
b = 12
36/a + 9/2 = 9
36/a = 9/2
a = 8
x – y = 8
x + y = 12
2x = 20
x = 10
y = 2
(AZ 230)
12. Option E
Ratio of efficiency of A and B = 5 : 4
total work = 36 * 5 = 180
efficiency of C = 180/30 = 6
required time = 180/5 + 4 + 6 = 12 days
13. Option E
Let CP of article = 100x
MP of article = 160x
CP = 960 – 160 = 800
100x = 800
x = 8
MP of article = 160 * 8 = 1280
14. Option B
Let investment of A, B and C = 4x, 6x and 9x respectively
period of investment of B and C = a and b months respectively.
ratio of profit share ,
A : B : C = 4x * 12 : 6x * a : 9x * b
4x * 12/6x * a = 4/5
a = 10 months
4x * 12/9x * b = 4/6
b = 8 months
required sum = 10 + 8 = 18 months
15. Option E
Income and expenditure of Sujit 15x and 6x respectively.
saving = 15x – 6x = 9x
new income = 15x * 6/5 * 4/5 = 24x

24x – 6x = 9x + 18000
x = 2000
new income = 24 * 2000 = 48000
(AZ 229)
16. Option B
Quantity of milk = 375 * 16/25 = 240
quantity of water = 375 * 9/25 = 135
ATQ,
240/135 + x = 3/2
3x + 405 = 480
x = 25
17. Option A
LCM of 24 and 20 = 120
efficiency of A = 120/24 = 5
efficiency of B = 120/20 = 6
efficiency of C = 5 * 160/100 = 8
time required = 120/8 = 15 days
18. Option E
Profit sharing ratio of P and Q = 15000 * 8 : 12000 * 6 = 5 : 3
profit share of P = 6400 * 5/8 = 4000
19. Option C
Rate of compound interest for half yearly = 20/2 = 10%
rate of CI after 1 year = 10 + 10 + 10 * 10/100 = 21%
CI = 25000 * 21/100 = 5250
amount = 25000 + 5250 = 30250
20. Option B
Explanation:
A : B = 100 : 90.
A : C = 100 : 72.

$$B : C = \frac{B}{A} \times \frac{A}{C} = \frac{90}{100} \times \frac{100}{72} = \frac{90}{72}.$$

When B runs 90 m, C runs 72 m.

When B runs 100 m, C runs $\left(\frac{72}{90} \times 100\right)$ m = 80 m.

∴ B can give C 20 m.
21. **Ans. (D)**
Yearly Income of Rohit = 12 × 494/(0.65 × 0.8 × 0.95)
= 12 × 494/0.494 = 12000 Rs.