

## Quantitative Aptitude Practice Test

### Problems on Trains

1. A train running at the speed of 60 km/hr crosses a pole in 9 seconds. What is the length of the train?

- A. 120 metres                      B. 180 metres  
C. 324 metres                      D. 150 metres

Ans: D

2. A train 125 m long passes a man, running at 5 km/hr in the same direction in which the train is going, in 10 seconds. The speed of the train is:

- A. 45 km/hr                      B. 50 km/hr  
C. 54 km/hr                      D. 55 km/hr

Ans: B

3. The length of the bridge, which a train 130 metres long and travelling at 45 km/hr can cross in 30 seconds, is:

- A. 200 m                      B. 225 m  
C. 245 m                      D. 250 m

Ans: C

4. Two trains running in opposite directions cross a man standing on the platform in 27 seconds and 17 seconds respectively and they cross each other in 23 seconds. The ratio of their speeds is:

- A. 1 : 3                      B. 3 : 2  
C. 3 : 4                      D. None of these

Ans: B

5. A train passes a station platform in 36 seconds and a man standing on the platform in 20 seconds. If the speed of the train is 54 km/hr, what is the length of the platform?

- A. 120 m                      B. 240 m  
C. 300 m                      D. None of these

Ans: B

### Time and Distance

6. A person crosses a 600 m long street in 5 minutes. What is his speed in km per hour?

- A. 3.6                      B. 7.2  
C. 8.4                      D. 10

Ans: B

7. An aeroplane covers a certain distance at a speed of 240 kmph in 5 hours. To cover the same distance in 1 hours, it must travel at a speed of:

- A. 300 kmph              B. 360 kmph  
C. 600 kmph              D. 720 kmph

Ans: D

8. If a person walks at 14 km/hr instead of 10 km/hr, he would have walked 20 km more. The actual distance travelled by him is:

- A. 50 km                    B. 56 km  
C. 70 km                    D. 80 km

Ans: A

9. A train can travel 50% faster than a car. Both start from point A at the same time and reach point B 75 kms away from A at the same time. On the way, however, the train lost about 12.5 minutes while stopping at the stations. The speed of the car is:

- A. 100 kmph              B. 110 kmph  
C. 120 kmph              D. 130 kmph

Ans: C

10. Excluding stoppages, the speed of a bus is 54 kmph and including stoppages, it is 45 kmph. For how many minutes does the bus stop per hour?

- A. 9                          B. 10  
C. 12                        D. 20

Ans: B

11. Two ships are sailing in the sea on the two sides of a lighthouse. The angle of elevation of the top of the lighthouse is observed from the ships are  $30^\circ$  and  $45^\circ$  respectively. If the lighthouse is 100 m high, the distance between the two ships is:

- A. 173 m                      B. 200 m  
C. 273 m                      D. 300 m

Ans: C

12. A man standing at a point P is watching the top of a tower, which makes an angle of elevation of  $30^\circ$  with the man's eye. The man walks some distance towards the tower to watch its top and the angle of the elevation becomes  $60^\circ$ . What is the distance between the base of the tower and the point P?

- A. 43 units                      B. 8 units  
C. 12 units                      D. Data inadequate  
E. None of these

Ans: D

13. The angle of elevation of a ladder leaning against a wall is  $60^\circ$  and the foot of the ladder is 4.6 m away from the wall. The length of the ladder is:

- A. 2.3 m                      B. 4.6 m  
C. 7.8 m                      D. 9.2 m

Ans: D

14. An observer 1.6 m tall is 203 away from a tower. The angle of elevation from his eye to the top of the tower is  $30^\circ$ . The heights of the tower is:

- A. 21.6 m                      B. 23.2 m  
C. 24.72 m                      D. None of these

Ans: A

15. From a point P on a level ground, the angle of elevation of the top tower is  $30^\circ$ . If the tower is 100 m high, the distance of point P from the foot of the tower is:

- A. 149 m                      B. 156 m  
C. 173 m                      D. 200 m

Ans: C

16. A can do a work in 15 days and B in 20 days. If they work on it together for 4 days, then the fraction of the work that is left is :

- A.  $\frac{1}{4}$
- B.  $\frac{1}{10}$
- C.  $\frac{7}{15}$
- D.  $\frac{8}{15}$

Ans: D

17. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?

- A. 12 days
- B. 15 days
- C. 16 days
- D. 18 days

Ans: B

18. A is thrice as good as workman as B and therefore is able to finish a job in 60 days less than B. Working together, they can do it in:

- A. 20 days
- B.  $22\frac{1}{2}$  days
- C. 25 days
- D. 30 days

Ans:

19. A alone can do a piece of work in 6 days and B alone in 8 days. A and B undertook to do it for Rs. 3200. With the help of C, they completed the work in 3 days. How much is to be paid to C?

- A. Rs. 375
- B. Rs. 400
- C. Rs. 600
- D. Rs. 800

Ans: B

20. If 6 men and 8 boys can do a piece of work in 10 days while 26 men and 48 boys can do the same in 2 days, the time taken by 15 men and 20 boys in doing the same type of work will be:

- A. 4 days
- B. 5 days
- C. 6 days
- D. 7 days

Ans: A

21. A sum of money at simple interest amounts to Rs. 815 in 3 years and to Rs. 854 in 4 years. The sum is:

- A. Rs. 650                      B. Rs. 690  
C. Rs. 698                      D. Rs. 700

Ans: C

22. Mr. Thomas invested an amount of Rs. 13,900 divided in two different schemes A and B at the simple interest rate of 14% p.a. and 11% p.a. respectively. If the total amount of simple interest earned in 2 years be Rs. 3508, what was the amount invested in Scheme B?

- A. Rs. 6400                      B. Rs. 6500  
C. Rs. 7200                      D. Rs. 7500  
E. None of these

Ans: A

23. A sum fetched a total simple interest of Rs. 4016.25 at the rate of 9 p.c.p.a. in 5 years. What is the sum?

- A. Rs. 4462.50                      B. Rs. 8032.50  
C. Rs. 8900                        D. Rs. 8925  
E. None of these

Ans: D

24. How much time will it take for an amount of Rs. 450 to yield Rs. 81 as interest at 4.5% per annum of simple interest?

- A. 3.5 years                      B. 4 years  
C. 4.5 years                      D. 5 years

Ans: B

25. Reena took a loan of Rs. 1200 with simple interest for as many years as the rate of interest. If she paid Rs. 432 as interest at the end of the loan period, what was the rate of interest?

- A. 3.6                                B. 6  
C. 18                                D. Cannot be determined  
E. None of these

Ans: B

26. A bank offers 5% compound interest calculated on half-yearly basis. A customer deposits Rs. 1600 each on 1st January and 1st July of a year. At the end of the year, the amount he would have gained by way of interest is:

- A. Rs. 120                      B. Rs. 121  
C. Rs. 122                      D. Rs. 123

Ans: B

27. The difference between simple and compound interests compounded annually on a certain sum of money for 2 years at 4% per annum is Re. 1. The sum (in Rs.) is:

- A. 625                              B. 630  
C. 640                              D. 650

Ans: A

28. There is 60% increase in an amount in 6 years at simple interest. What will be the compound interest of Rs. 12,000 after 3 years at the same rate?

- A. Rs. 2160                      B. Rs. 3120  
C. Rs. 3972                      D. Rs. 6240  
E. None of these

Ans: C

29. What is the difference between the compound interests on Rs. 5000 for 1 years at 4% per annum compounded yearly and half-yearly?

- A. Rs. 2.04                      B. Rs. 3.06  
C. Rs. 4.80                      D. Rs. 8.30

Ans: A

30. The compound interest on Rs. 30,000 at 7% per annum is Rs. 4347. The period (in years) is:

- A. 2  
B.  $2\frac{1}{2}$   
C. 3  
D. 4

Ans: A

### Profit and Loss

31. Alfred buys an old scooter for Rs. 4700 and spends Rs. 800 on its repairs. If he sells the scooter for Rs. 5800, his gain percent is:

4  $4\frac{4}{7}\%$   
5  $5\frac{5}{11}\%$   
10%  
12%

Ans: B

32. The cost price of 20 articles is the same as the selling price of x articles. If the profit is 25%, then the value of x is:

A. 15                      B. 16  
C. 18                      D. 25

Ans: B

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

A.  $66\frac{2}{3}$   
B. 100  
C.  $105\frac{1}{3}$   
D. 120

Ans: B

34. In a certain store, the profit is 320% of the cost. If the cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?

A. 30%                      B. 70%  
C. 100%                      D. 250%

Ans: B

35. A vendor bought toffees at 6 for a rupee. How many for a rupee must he sell to gain 20%?

A. 3                              B. 4  
C. 5                              D. 6

Ans: C

36. Alfred buys an old scooter for Rs. 4700 and spends Rs. 800 on its repairs. If he sells the scooter for Rs. 5800, his gain percent is:

A.  $4\frac{4}{7}$   
B.  $5\frac{5}{11}$   
C. 10%  
D. 12%

Ans: B

37. The cost price of 20 articles is the same as the selling price of  $x$  articles. If the profit is 25%, then the value of  $x$  is:

- A. 15                      B. 16  
C. 18                      D. 25

Ans: B

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

- A.  $66\frac{2}{3}$   
B. 100  
C.  $105\frac{1}{3}$   
D. 120

Ans: B

39. In a certain store, the profit is 320% of the cost. If the cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?

- A. 30%                      B. 70%  
C. 100%                      D. 250%

Ans: B

40. A vendor bought toffees at 6 for a rupee. How many for a rupee must he sell to gain 20%?

- A. 3                              B. 4  
C. 5                              D. 6

Ans: C