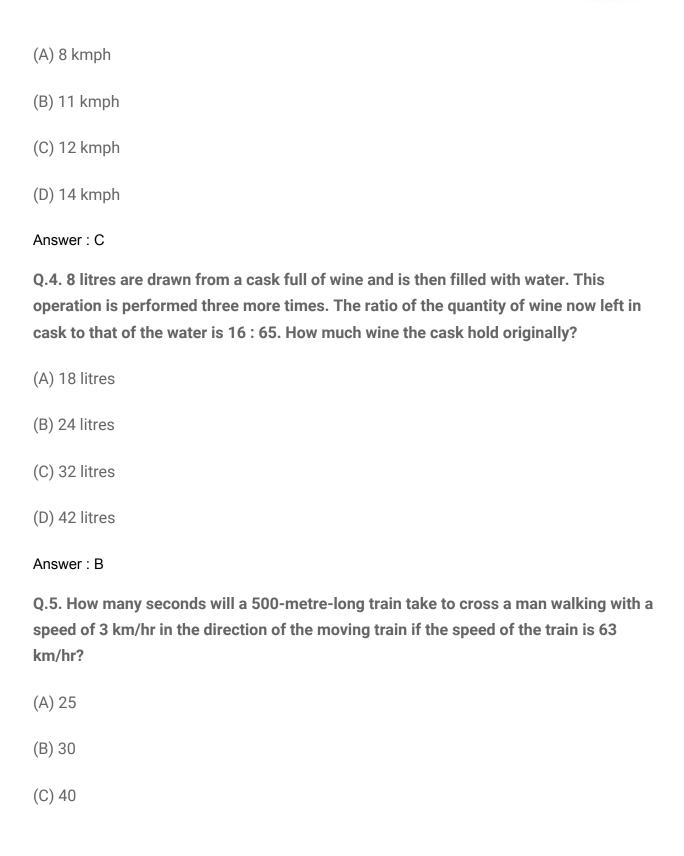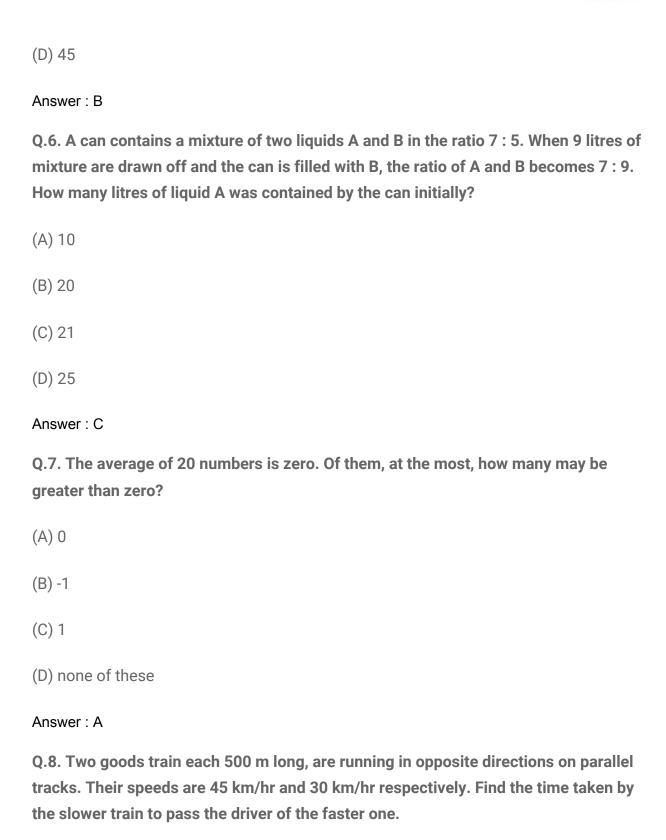# Officers Training Academy, Chennai (TN)

Numeric Ability

Q.1. In covering a distance of 30 km, Abhay takes 2 hours more than Sameer. If Abhay doubles his speed, then he would take 1 hour less than Sameer. Abhay's speed is:

(A) 5 kmph

(B) 6 kmph

(C) 6.25 kmph

(D) 7.5 kmph

Answer : A

Q.2. Tea worth of Rs. 135/kg & Rs. 126/kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth Rs. 153 per kg, the price of the third variety per kg will be____?

(A) Rs. 169.50

(B) Rs.1700

(C) Rs. 175.50

(D) Rs. 180

Answer : C

Q.3. Robert is travelling on his cycle and has calculated to reach point A at 2 P.M. if he travels at 10 kmph, he will reach there at 12 noon if he travels at 15 kmph. At what speed must he travel to reach A at 1 P.M.?

(A) 8 kmph

(B) 11 kmph

(C) 12 kmph

(D) 14 kmph

Answer : C

Q.4. 8 litres are drawn from a cask full of wine and is then filled with water. This operation is performed three more times. The ratio of the quantity of wine now left in cask to that of the water is 16 : 65. How much wine the cask hold originally?

(A) 18 litres

(B) 24 litres

(C) 32 litres

(D) 42 litres

Answer : B

Q.5. How many seconds will a 500-metre-long train take to cross a man walking with a speed of 3 km/hr in the direction of the moving train if the speed of the train is 63 km/hr?

(A) 25

(B) 30

(C) 40

(D) 45

Answer : B

Q.6. A can contains a mixture of two liquids A and B in the ratio 7 : 5. When 9 litres of mixture are drawn off and the can is filled with B, the ratio of A and B becomes 7 : 9. How many litres of liquid A was contained by the can initially?

(A) 10

(B) 20

(C) 21

(D) 25

Answer : C

Q.7. The average of 20 numbers is zero. Of them, at the most, how many may be greater than zero?

(A) 0

(B) -1

(C) 1

(D) none of these

Answer : A

Q.8. Two goods train each 500 m long, are running in opposite directions on parallel tracks. Their speeds are 45 km/hr and 30 km/hr respectively. Find the time taken by the slower train to pass the driver of the faster one.

(A) 12 sec

(B) 24 sec

(C) 48 sec

(D) 60 sec

Answer : B

Q.9. If log 64 = 1.8061, then the value of log 16 will be (approx)?

(A) 1.9048

(B) 1.2040

(C) 0.9840

(D) 1.4521

Answer : B

Q.10. 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
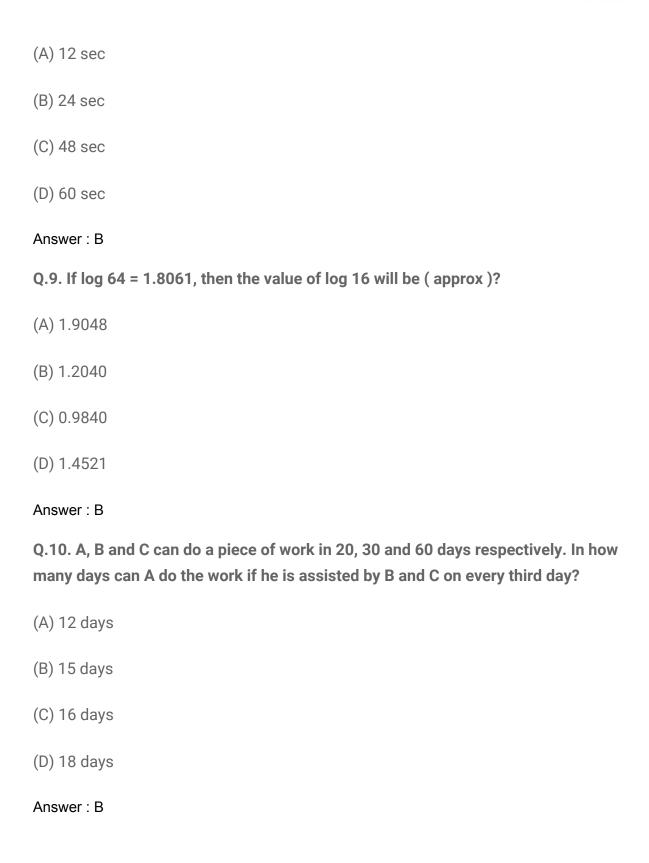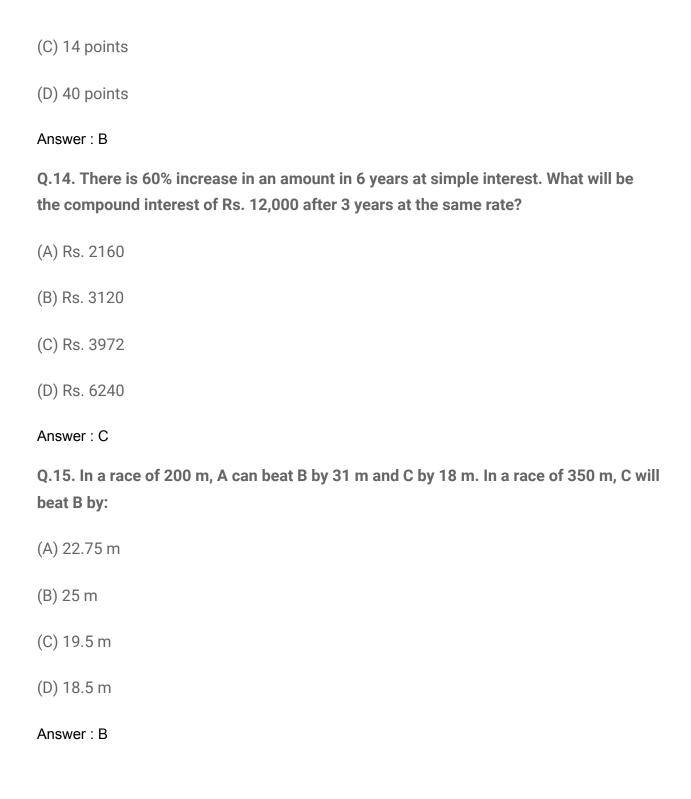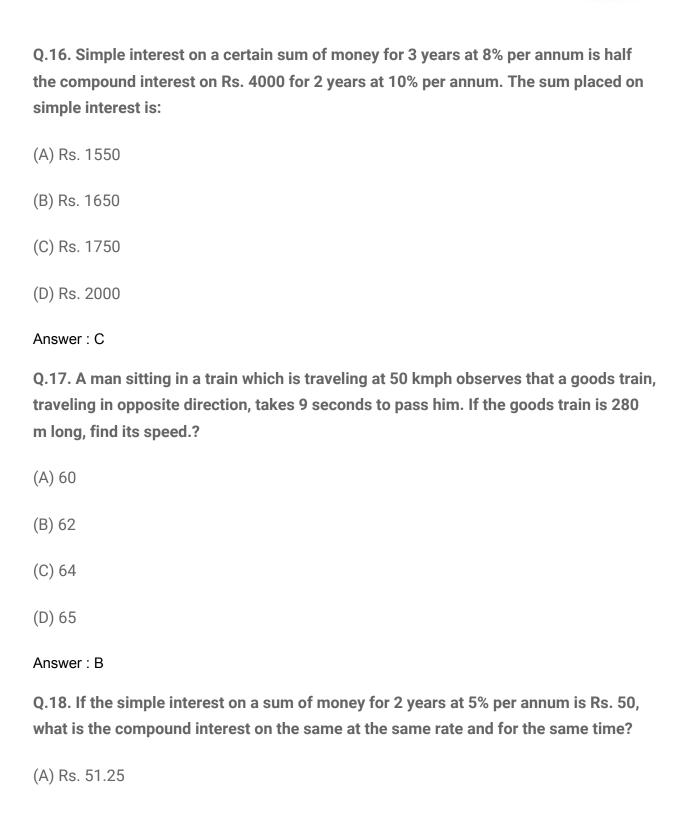
(C) 16 days

(D) 18 days

Answer : B

Q.11. A and B take part in 100 m race. A runs at 5 kmph. A gives B a start of 8 m and still beats him by 8 seconds. The speed of B is:

(A) 5.15 kmph

(B) 4.14 kmph

(C) 4.25 kmph

(D) 4.4 kmph

Answer : B

Q.12. 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) 45/2

(C) 25 days

(D) 30 days

Answer : B

Q.13. In a game of 100 points, A can give B 20 points and C 28 points. Then, B can give C is

(A) 8 points

(B) 10 points

(C) 14 points

(D) 40 points

Answer : B

Q.14. 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

Answer : C

Q.15. In a race of 200 m, A can beat B by 31 m and C by 18 m. In a race of 350 m, C will beat B by:

(A) 22.75 m

(B) 25 m

(C) 19.5 m

(D) 18.5 m

Answer : B

Q.16. Simple interest on a certain sum of money for 3 years at 8% per annum is half the compound interest on Rs. 4000 for 2 years at 10% per annum. The sum placed on simple interest is:

(A) Rs. 1550

(B) Rs. 1650

(C) Rs. 1750

(D) Rs. 2000

Answer : C

Q.17. A man sitting in a train which is traveling at 50 kmph observes that a goods train, traveling in opposite direction, takes 9 seconds to pass him. If the goods train is 280 m long, find its speed.?

(A) 60

(B) 62

(C) 64

(D) 65

Answer : B

Q.18. If the simple interest on a sum of money for 2 years at 5% per annum is Rs. 50, what is the compound interest on the same at the same rate and for the same time?

(A) Rs. 51.25

(B) Rs. 52

(C) Rs. 54.25

(D) Rs. 60

Answer : A

Q.19. Two trains are running in opposite directions in the same speed. The length of each train is 120 meter. If they cross each other in 12 seconds, the speed of each train (in km/hr) is

(A) 42

(B) 36

(C) 28

(D) 20

Answer : B

Q.20. 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) 5%

(B) 8%

(C) 12%

(D) 15%

Answer : C

Q.21. A man walked diagonally across a square lot. Approximately, what was the percent saved by not walking along the edges?

(A) 30

(B) 40

(C) 50

(D) 60

Answer : A