

**SRM CHENNAI**

**BY - SHASHANK  
MISHRA 2012-09-  
10**

30 questions

80 Minutes

---

Calculator allowed,(but not needed)

---

More questions in Time and Work

Time Speed distance

Other topics were

Functions(2 or 3 questions of which 1 on int function)

Probability

Fractions

Remainders

Direction Sense

Percentage

Equations

Mixtures

Ages

Calendar

1. George is 5 times more efficient than his son. He completes a work 40 days earlier than his son. Working together, how many days will they take to complete the work?
2. A January month has four Thursdays and four Sundays. What is day the of week of 1st of January?
3.  $1-2+3-4+5\hat{?}\hat{?}\hat{?}\dots-98+99 =$
4.  $1-2+3-4+5-6\hat{?}\hat{?}\hat{?}\dots$  what is the average of first 200 terms of this sequence?
5. Rajan will be twice his son's age in 6 years. Mother age was twice Rajan's son age 2 years ago. If his son will be 25 years in 3 years. Find the sum of the present ages of father and mother.

6. A merchant buys 20 kg wheat at Rs.30/kg and 40 kg wheat at Rs.25/kg and mixed them. He sold one-third of mixture at Rs.26, what should be the cost/kg of the remaining mixture, so as to make a profit of 25% on the whole?  
(a)60 (b)40 (c) 37 (d) 30

7. In box of balls,  $\frac{2}{3}$ rd are blue and the remaining is pink. If  $\frac{5}{9}$  th of blue and  $\frac{7}{8}$  th of pink are defective, find the probability of picking up a defective ball, if there is a total of 146 balls in the box.

8. If the two expressions  $x^2 + 11x + A$  and  $x^2 + 14x + 2A$  have a common factor, find A.

9. At the end of year 1994, George is half of his grandmother's age. The sum of the years the both of them were 3844. What is the sum of their ages in 1999?

10. A child is looking for his father. He went 90 metres in the East before turning to his right. He went 20 metres before turning to his right again to look for his father at his uncle's place 30 metres from this point. His father was not there. From here he went 100 metres to the North before meeting his father in a street. How far did the son meet his father from the starting point?  
a] 80 metres b] 100 metres c] 140 metres d] 260 metres

11. There are 720 boxes, A & B can paint them in 24 days, B&C can paint them in 16 days, A&C in 20 days. If A paints for 4 days, B for 8 days and C for 8 days, how many boxes will be painted?

Or

There are 720 boxes, A can paint them in 20 days, B can paint them in 24 days, C in 15 days. If A paints for 4 days, B for 8 days and C for 8 days, how many boxes will be painted in total?

12. In a School 60% of the students are girls of which 45% are poor, what is the probability of selecting a poor girl among the

students as school leader?

13. What should be added to 5678 to get a remainder of 35, when divide by 460?

14. A team has won 80% of the games it has played in this season. In the next season it won 3 out of 5 matches and its losing percentage was 25%, how many matches the team has played in total?

15. Megha drives her car along a square field of side 10km along the perimeter. First side at the speed of 10kmph, second at the speed of 20kmph, third side at the speed of 30 kmph, then at 40kmph. Find the average speed of the total travel.

16. if  $A+B+C+D+E=FG$ , such that  $A,B,C,D,E$  are distinct numbers, where  $FG$  is in the form  $10F+G$ , for  $FG$  to be the maximum possible value. What will be the value  $G$  be?

17. To cars which are apart, move towards each other at the speed of 50 kmph and 60 kmph, the faster car travels 120 kms more than the other. Find the total distance traveled by the faster car.

18. The Mean of three numbers is 10 more than than the least number and 15 less than the highest. Their median is 5. Find the sum of the three numbers.

19. Three friends George, Smith and John invested 30000, 40000 and 50000 in an investment and George withdrew his investment after half a year. If the total return was 90000. Find George's share.

20. A man can load one box in 9 minutes. A truck can contain 8 boxes. If 16 men load for one and a half hour, how many trucks will be loaded?

21. George is  $\frac{2}{3}$  rd as efficient as smith and smith is  $\frac{3}{4}$  th as

efficient as John. George working alone is what fraction of All of them working together.

22. An Old man and a Young man are working together in an office and staying together in a near by apartment. The Old Man takes 30 minutes and the Young 20 minutes to walk from apartment to office. If one day the old man started at 10:00AM and the young man at 10:05AM from the apartment to office, when will they mee?

23. If a number is divided by 357 the remainder is 5, what will be the remainder if the number is divided by 17?

24. If  $A=x^3 y^2$  and  $B=xy^3$ , then find the HCF of A,B.

25. A certain organization has three committees. Only two persons are members of all committees, but every pair of committees have three members in common. What is the least possible no of member of members on any one committee?

a)4 b)5 c)6 d)none of these.