**TCS Model Aptitude Question Paper for 2012- 2013**  
  
1. The water from one outlet, flowing at a constant rate, can fill the swimming pool in 9 hours. The water from second outlet, flowing at a constant rate can fill up the same pool in approximately in 5 hours. If both the outlets are used at the same time, approximately what is the number of hours required to fill the pool?  
  
2. If 75 % of a class answered the first question on a certain test correctly, 55 percent answered the second question on the test correctly, and 20 percent answered neither of the questions correctly, what percentage answered both correctly?  
  
3. A student's average ( arithmetic mean) test score on 4 tests is 78. What must be the students score on a 5th test for the students average score on the 5th test to be 80?  
  
4. Rural households have more purchasing power than do urban households at the same income level, since some of the income urban and suburban households use for food and shelter can be used by the rural households for other needs. Which of the following inferences is best supported by the statement made above?  
  
5. Jose is a student of horticulture in the University of Hose. In a horticultural experiment in his final year, 200 seeds were planted in plot I and 300 were planted in plot II. If 57% of the seeds in plot I germinated and 42% of the seeds in plot II germinated, what percent of the total number of planted seeds germinated?  
  
6. A closed cylindrical tank contains 36 pie cubic feet of water and its filled to half its capacity. When the tank is placed upright on its circular base on level ground, the height of water in the tank is 4 feet. When the tank is placed on its side on level ground, what is the height, in feet, of the surface of the water above the ground?  
  
7. The present ratio of students to teachers at a certain school is 30 to 1. If the student enrollment were to increase by 50 students and the number of teachers were to increase by 5, the ratio of the teachers would then be 25 to 1 What is the present number of teachers?  
  
8. College T has 1000 students. Of the 200 students majoring in one or more of the sciences,130 are majoring in Chemistry and 150 are majoring in Biology. If at least 30 of the students are not majoring in either Chemistry or Biology, then the number of students majoring in both Chemistry and Biology could be any number from  
  
9. Kelly and Chris are moving into a new city. Both of them love books and thus packed several boxes with books. If Chris packed 60% of the total number of boxes, what was the ratio of the number of boxes Kelly packed to the number of boxes Chris packed?  
  
10. A drug that is highly effective in treating many types of infection can, at present, be obtained only from the bark of the ibora, a tree that is quite rare in the wild. It takes the bark of 5,000 trees to make one kilogram of the drug. It follows, therefore, that continued production of the drug must inevitably lead to the ibora's extinction. Which of the following, if true, most seriously weakens the argument above?  
  
11. Machine A produces bolts at a uniform rate of 120 every 40 second, and Machine B produces bolts at a uniform rate of 100 every 20 seconds. If the two machines run simultaneously, how many seconds will it take for them to produce a total of 200 bolts?  
  
12. Wood smoke contains dangerous toxins that cause changes in human cells. Because wood smoke presents such a high health risk, legislation is needed to regulate the use of open-air fires and wood burning stoves  
  
13. Analysing the good returns that Halocircle Insurance Pvt Ltd was giving, Ratika bought a 1-year, Rs 10,000 certificate of deposit that paid interest at an annual rate of 8% compounded semi-annually.What was the total amount of interest paid on this certificate at maturity?  
  
14. Juan is a gold medalist in athletics. In the month of May, if Juan takes 11 seconds to run y yards, how many seconds will it take him to run x yards at the same rate?  
  
15. A certain company retirement plan has a rule of 70 provision that allows an employee to retire when the employee's age plus years of employment with the company total at least 70. In what year could a female employee hired in 1986 on her 32nd birthday first be eligible to retire under this provision?  
  
16. Homeowners aged 40 to 50 are more likely to purchase ice cream and are more likely to purchase it in larger amounts than are members of any other demographic group. The popular belief that teenagers eat more ice-cream than adults must, therefore, be false. The argument is flawed because the author \_\_\_\_\_  
  
17. Andalusia has been promoting the importance of health maintenance. From January 1,1991 to January 1,1993, the number of people enrolled in health maintenance organizations increased by 15 percent. The enrollment on January 1,1993 was 45 million. How many million people(to the nearest million) was enrolled in health maintenance organizations on January 1,1991?  
  
18. What is the lowest possible integer that is divisible by each of the integers 1 through 7, inclusive?  
  
19. If the area of a square region having sides of length 6 cms is equal to the area of a rectangular region having width 2.5 cms, then the length of the rectangle, in cms, is  
  
20. A tank contains 10,000 gallons of a solution that is 5 percent sodium chloride by volume. If 2500 gallons of water evaporate from the tank, the remaining solution will be approximately what percentage of sodium chloride?  
  
21. After loading a dock, each worker on the night crew loaded 3/4 as many boxes as each worker on the day of the crew. If the night crew has 4/5 as many workers as the day crew, what fraction of all the boxes loaded by two crews did the day crew load?  
  
22. A bakery opened yesterday with its daily supply of 40 dozen rolls. Half of the rolls were sold by noon and 80 % of the remaining rolls were sold between noon and closing time. How many dozen rolls had not been sold when the bakery closed yesterday?  
  
23. If n=4p, where p is a prime number greater than 2, how many different positive even divisors does n have including n?  
  
24. A dealer originally bought 100 identical batteries at a total cost of q rupees. If each battery was sold at 50 percent above the original cost per battery, then, in terms of q, for how many rupees was each battery sold?  
  
25. The price of lunch for 15 people was 207 pounds, including a 15 percent gratuity of service. What was the average price per person, EXCLUDING the gratuity?  
  
26. Of the following, which is the closest approximation of (50.2\*0.49)/199.8 ?  
  
27. How many prime numbers between 1 and 100 are factors of 7150?  
  
28. Guitar Strings often go dead - become less responsive and bright in tone - after a few weeks of intense use. A researcher whose son is a classical guitarist hypothesized that dirt and oil, rather than changes in the material properties of the string, were responsible. Which of the following investigations is most likely to yield significant information that would help evaluate the researcher's hypothesis?  
  
29. Red blood cells in which the malarial-fever parasite resides are eliminated from a person's body after 120 days. Because the parasite cannot travel to a new generation of red blood cells, any fever that develops in a person more than 120 days after that person has moved to a malaria free region is not due to malarial parasite. Which of the following, if true, most seriously weakens the conclusion above?  
  
30. Among a group of 2500 people, 35 percent invest in municipal bonds, 18 percent invest in oil stocks, and 7 percent invest in both municipal bonds and oil stocks. If 1 person is to be randomly selected from 2500 people, what is the probability that the person selected will be one who invests in municipal bonds but not in oil stocks  
  
31. When a polygraph test is judged inconclusive, this is no reflection on the examinee. Rather, such a judgment means that the test has failed to show whether the examinee was truthful or untruthful. Nevertheless, employers will sometime refuse to hire a job applicant because of an inconclusive polygraph test result. Which of the following conclusions can most properly be drawn from the information above?  
  
32. Country Club has an indoor swimming club. Thirty percent of the members of a swim club have passed the lifesaving test. Among the members who have not passed the test, 12 have taken the preparatory course and 30 have not taken the course. How many members are there in the swim club?  
  
33. A necklace is made by stringing N individual beads together in the repeating pattern red bead, green bead, white bead, blue bead and yellow bead. If the necklace begins with a red bead and ends with a white bead, then N could be: