



**SPECIMEN QUESTIONS  
FOR**

**CLASS - 7**

# Class : 7

- For the help of tsunami affected people of Andaman, the students of your class have decided to contribute each as many 25 paise as there are number of students in your class. With  $\frac{5}{7}$  th of the total collected fund, medicines are purchased and the remaining Rs.126 is deposited to Chief Minister's Relief Fund. What was the total amount of collection?  
(a) 441      (b) 440      (c) 443      (d) none of these
- A piece of length 15 decimetres is cut off from a bamboo pole and it is found that the length of this piece to that of the remaining portion of the bamboo pole bears the ratio 3 : 1. Find separately the ratio of the length of the two portions to the whole length of the bamboo pole.  
(a) 4 : 3, 5 : 5      (b) 4 : 3, 5 : 1  
(c) 4 : 3, 4 : 1      (d) 4 : 2, 4 : 1
- Your father went from home to a certain place and returned back by motorcycle, after doing a work for one hour there. The total time taken was 3 hours 30 minutes. If the speed of the motor cycle by 40 km/hour. What was the distance of that place from your home ?  
(a) 70 km      (b) 60 km      (c) 50 km      (d) 40 km
- 18 members of a female co-operative society made 1519 kg of thread from cins in a week. How much thread they can make in 12 days.  
(a) 2604 kg      (b) 2600 kg  
(c) 2640 kg      (d) none of these
- A and B can do a piece of work in 10 and 15 days respectively. A alone did the work for 4 days and then B alone did the for 5 days. There after C did the remaining work 8 days. How long will they take to complete the work together?  
(a) 5 days      (b) 6 days      (c) 3 days      (d) 10 days
- By which least whole number  $\frac{49}{27}$  be multiplied, so that the product is a perfect square fraction  
(a) 2      (b) 3      (c) 4      (d) 6
- What is that least number whose difference from 0.000328 is a perfect square?  
(a) 0.000003      (b) 0.00004  
(c) 0.000004      (d) none of these
- a, b and 50 mangoes were plucked from three trees and these mangoes were distributed among 10 pupils. If C mangoes be found rotten before distribution find the number of mangoes each pupil received.  
(a)  $\frac{a+b+50-c}{10}$       (b)  $\frac{a+b+c+50}{20}$   
(c)  $\frac{a+b+c+30}{10}$       (d)  $\frac{a+b+30-c}{10}$
- If  $m + \frac{1}{m} = -a$  then find the value of  $m^2 + \frac{1}{m^2} = ?$   
(a)  $a^2 - 2$       (b)  $a^2 - 1$   
(c)  $a^2 + 2$       (d) none of these
- $\frac{x}{y} + \frac{y}{x} = 3$  find the value of  $\frac{x^2}{y^2} + \frac{y^2}{x^2}$   
(a) 11      (b) 10      (c) 8      (d) 7
- $\frac{x}{y} = \frac{y}{x} + \frac{3}{2}$  find the value of  $\frac{x^2}{y^2} + \frac{y^2}{x^2}$   
(a)  $\frac{4}{17}$       (b)  $\frac{16}{7}$       (c)  $\frac{15}{4}$       (d)  $\frac{17}{4}$

12.  $5l^4 - 4l^2m^2 - m^4 = ?$   
 (a)  $(l + m)(l - m)(5l^2 + 2m^2)$   
 (b)  $(l + m)(l - m)(5l^2 + m^2)$   
 (c)  $(l + m)(5l^2 + m^2)$  (d) none of these
13. In, 64 litre mixture of milk and water, the ratio of milk and water is 1 : 3. What is the quantity of milk in the mixture?  
 (a)16 (b) 48 (c) 15 (d) 21
14. 30% of A = 0.25 of B =  $\frac{1}{5}$  of C. Find A : B : C = ?  
 (a) 3 : 6 : 5 (b) 6 : 3 : 5  
 (c) 3 : 5 : 6 (d) none of these
15.  $\sqrt{\sqrt{\frac{4}{9}} + \sqrt{\frac{100}{9}}} = ?$   
 (a) 3 (b) 2 (c) 5 (d) 10
16. Two brothers, one on auto and the other on bi-cycle started for a place 39 km. away. The first brother took 2 hours 10 minutes, and second one took 1 hour 2 minutes, more than the first. Find the speed of auto and bi-cycle separately.  
 (a)18 km./hr.; 12.2 km./hr.  
 (b)12 km./hr.; 23 km./hr.  
 (c)29 km./hr.; 32 km./hr.  
 (d)33 km./hr.; 20 km./hr
17. Two trains, 200 metre and 240 metre long are running on two parallel track, in opposite direction with speeds of 42.5km/hr and 36.7 km/hr respectively. In what time will they pass each other after meeting?  
 (a)36 sec. (b) 24 sec. (c)20 sec. (d)30 sec.
18. A traveller, after travelling a distance of 60 kms, on second day, found that the ratio of the distances travelled by him on the first and second day in 4 : 5. If he travels a distance of 48 km on the third day, what will be the ratio of the distances travelled by him on the first and third day ?  
 (a) 5 : 6 (b) 1 : 1 (c) 3 : 4 (d) 5 : 4
19. In a School there were 660 students and the ratio of boys and girls was 13 : 9. After some time 30 girls joined the School but few boys left the School; as a result the ratio of boys and girls become 6 : 5. How many boys left the School.  
 (a) 39 (b) 30 (c) 35 (d) 36
20. In a camp of 6000 men there was provision for food for 285 days. After 45 days 1200 men went away from that camp. How many days will the rest of the food provide the remaining men?  
 (a) 300 days (b) 450 days  
 (c) 600 days (d) 290 days
21. By how much does  $\sqrt{\frac{1}{9} + \frac{7}{12}}$  fall short of unity?  
 (a)  $\frac{1}{6}$  (b)  $\frac{2}{5}$   
 (c)  $\frac{3}{4}$  (d) None of these
22. There are  $m$  students in a School. If  $r\%$  students are present today, then how many students are present today?  
 (a)  $100mr$  (b)  $\frac{100m}{r}$  (c)  $\frac{mr}{100}$  (d)  $\frac{m}{100r}$
23. The rooms were constructed by spending Rs. 65700 in a village School to accomodate the increased number of students.  $\frac{3}{5}$  th of the total expenditure was received from Sarba Siksha Abhiyan as donation and the rest was donated by the families of that village at the rate of Rs. 72 per family. Find the number of families of that village?  
 (a) 372 (b) 256 (c) 365 (d) 403

24. If  $6\left(x - \frac{1}{x}\right) = 5$ ,  $x^2 + \frac{1}{x^2} = ?$

- (a)  $2\frac{5}{6}$       (b)  $3\frac{1}{5}$       (c)  $2\frac{25}{36}$       (d)  $2\frac{9}{25}$

25. Resolve into factors :

$$3x^2 - y^2 + z^2 - 2xy - 4xz$$

- (a)  $(3x + y - z)(x - y - z)$   
 (b)  $(3x + y + z)(x - y - z)$   
 (c)  $(3x - y + z)(2x - 4z + y)$   
 (d) None of these.

26. If  $\frac{a}{b} + \frac{b}{a} = 4$ , then  $\frac{a^2}{b^2} + \frac{b^2}{a^2} = ?$

- (a) 14      (b) 19      (c) 25      (d) 16

27. Factories : —

$$\frac{a}{x} + \frac{b}{x} + \frac{c}{x} + \frac{a}{y} + \frac{b}{y} + \frac{c}{y}$$

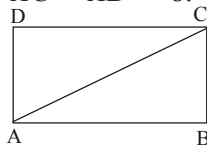
- (a)  $\frac{a+b+c}{xy}$       (b)  $\frac{x+y}{x(a+b+c)}$   
 (c)  $\frac{(x+y)(a+b+c)}{xy}$       (d)  $\frac{a+b+c}{xy(x+y+z)}$

28. The area of the larger square is  $a^2$  and that of the smaller square is  $b^2$ . Then  $\frac{\text{Area of the shaded portion}}{\text{Area of the larger square}} = ?$



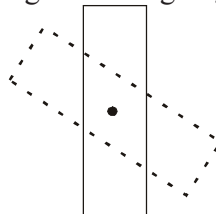
- (a)  $\left(1 + \frac{b}{a}\right)\left(1 - \frac{b}{a}\right)$       (b)  $\frac{a-b}{a}$   
 (c)  $\left(\frac{1}{a} + \frac{1}{b}\right)\left(\frac{1}{a} - \frac{1}{b}\right)$       (d) None of these

29. In the given figure,  $AC + AB = 5AD$  and  $AC - AD = 8$ . Then, the area of the rectangle ABCD is



- (a) 36      (b) 50  
 (c) 60      (d) Data insufficient

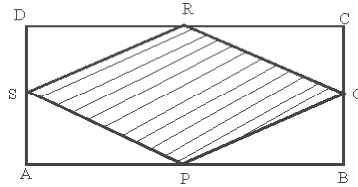
30. Which type of motion is the body in the figure undergoing ?



- (a) Pure Rotation      (b) Pure Translation  
 (c) Both Rotation and Translation      (d) Reflection

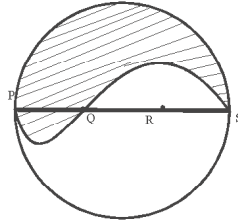
31. In a particular type of steel, the ratio of iron and carbon is 19 : 1. How many quintals of carbon are in 250 quintals of that type of steel?  
 (a) 7 quintal (b) 6 quintal (c) 5 quintal (d) none of these
32. Your father went from home to a certain place and returned back by motorcycle, after doing a work for one hour there. The total time taken was 3 hours 30 minutes. If the speed of the motor cycle by 40 km/hour. What was the distance of that place from your home ?  
 (a) 70 km (b) 60 km (c) 50 km (d) 40 km
33. A 250 metres long goods train is running with 33 km/hr. On the other parallel track a 200 metres long mail train running with a speed of 60 km/hr is following the goods train. In what time will mail train pass it the goods train after meeting?  
 (a) 2 mins (b) 1 min (c) 10 mins (d) 1 min 5 sec
34. What is that least number whose difference from 0.000328 is a perfect square?  
 (a) 0.000003 (b) 0.00004 (c) 0.000004 (d) none of these
35. There is 15 metres wide path all around outside of a rectangular park which is 45m long and 20m wide. What is the cost of cementing the path at the rate of Rs. 1.20 per square metre?  
 (a) Rs. 244.50 (b) Rs. 244.80 (c) Rs. 240.80 (d) Rs. 244.7
36.  $\frac{ax+b}{3} = \frac{cx+d}{2}$  find the value of 'x'.  
 (a)  $x = \frac{3d+2b}{3a+3c}$  (b)  $x = \frac{3d-2c}{2a+2b}$  (c)  $x = \frac{3d-2b}{2a-3c}$  (d) none of these
37. It takes 21 minutes less time by bicycle to reach school from home at speed of 10 km/hr than to walk the distance with a speed of 3 km/hr form the equation and what is the distance between home and school?  
 (a)  $\frac{x}{3} - \frac{x}{10} = \frac{21}{60}$  distance = 1½ km (b)  $\frac{x}{2} - \frac{x}{8} = \frac{21}{60}$  distance = 2½ km  
 (c)  $\frac{x}{2} - \frac{x}{7} = \frac{23}{60}$  distance 1  $\frac{1}{4}$  km (d) none of these
38.  $5l^4 - 4l^2m^2 - m^4 = ?$   
 (a)  $(l+m)(l-m)(5l^2+2m^2)$  (b)  $(l+m)(l-m)(5l^2+m^2)$   
 (c)  $(l+m)(5l^2+m^2)$  (d) none of these
39. The ratio of boys and girls is 7 : 13 in a school. If the total number of student of the school is 400. Then find the difference of the boys and girls number in the school?  
 (a) 160 (b) 140 (c) 260 (d) 120
40. Few people do a work in 12 days. But due to the absence of 8 people from the begining of the work, the work end in 20 days. How many peoples were there at the begining of the work?  
 (a) 18 (b) 20 (c) 22 (d) 24
41. In a workshop, yearly profit is divided in the ratio of 5 : 3 between dividend payable to the worker members and deposit in the fixed deposit account. If in a particular year the profit is 20000, what amount will go to the fixed deposit account?  
 (a) 7500 (b) 8370 (c) 2000 (d) None of these
42. A path 10m wide runs all around outside a square garden and has an area 2000 sqm. Find the area of this garden without the path.  
 (a) 1600 m<sup>2</sup> (b) 1021 m<sup>2</sup> (c) 1002 m<sup>2</sup> (d) None of these

43. The sides of two square gardens are each 45m and 24 m. The area of a square field is equal to the sum of the area of two gardens. How much it will cost to erect a fence all around the square field at the rate of Rs. 20.50 per metre ?  
 (a) Rs. 4282                      (b) Rs. 3982                      (c) Rs. 4180                      (d) Rs. 4182
44. By how much does  $\sqrt{\frac{1}{9} + \frac{7}{12}}$  fall short of unity?  
 (a) 1/6                              (b) 2/5                              (c) 3/4                              (d) None of these.
45. If  $6\left(x - \frac{1}{x}\right) = 5$ ,  $x^2 + \frac{1}{x^2} = ?$   
 (a)  $2\frac{5}{6}$                               (b)  $3\frac{1}{5}$                               (c)  $2\frac{25}{36}$                               (d)  $2\frac{9}{25}$
46. Simplify :  $\frac{a^4 - b^4}{(a+b)^2 - 4ab} \times \frac{a-b}{(a-b)^2 + 2ab} \div (a+b)$   
 (a)  $2ab$                               (b) 1  
 (c)  $(a+b)(a-b)$                               (d)  $(a+b)$
47. Some mangoes are distributed among a few number of boys. When 18 mangoes become excess, when each boy is given 15. Find the number of boys.  
 (a) 20                              (b) 28                              (c) 33                              (d) 22
48. In a division sum, the divisor is  $-7x^2y$  and the quotient is  $-12x^8y^9$ . What is the dividend ?  
 (a)  $84x^{10}y^{10}$                               (b)  $96x^8y^9$                               (c)  $96x^{10}y^{10}$                               (d) None of these.
49. The ratio of the ages of Karan and Arjun is 8 : 5 of the age of Karan be 40 years, what is the age of Arjun?  
 (a) 32 years                              (b) 30 years                              (c) 25 years                              (d) 20 years
50. Area of a square plot is 8100sqm. Find the cost of fencing the plot at Rs. 2.25 per metre.  
 (a) Rs. 810                              (b) Rs. 825                              (c) Rs. 815                              (d) Rs. 812
51. 3 tractors can till 18 bighas of land daily. How much of land can be tilled daily by 7 tractors?  
 (a) 40 bighas                              (b) 42 bighas                              (c) 36 bighas                              (d) 59 bighas
52. Jeet alone can do a work in 24 hours, while his friend Dev takes 30 hrs, to do the same work. How long will they take to complete the entire work together ?  
 (a) 12 hrs.                              (b)  $19\frac{2}{3}$  hrs                              (c)  $22\frac{1}{2}$  hrs.                              (d)  $13\frac{1}{3}$  hrs.
53. A bucket contains  $24\frac{3}{4}$  litres of water. How many  $\frac{3}{4}$ litre jugs can be filled from the bucket to get it emptied?  
 (a) 29                              (b) 33                              (c) 39                              (d) 27
54. A car covers a distance of 89.1km in 2.2 hours. What is the average distance covered by the car in 1 hour ?  
 (a) 41.2 km                              (b) 40.5 km                              (c) 43.7 km                              (d) None of these
55. In the figure below ABCD is a rectangle of length AB = 40 cm and breadth BC = 25cm. If P, Q, R, S be the mid-points of the sides AB, BC, CD and DA respectively find the area of the shaded region.



- (a)  $502 \text{ cm}^2$       (b)  $360 \text{ cm}^2$       (c)  $500 \text{ cm}^2$       (d) None of these

56. PQRS is a diameter of a circle of radius 6 cm. The lengths PQ, QR and RS are equal. Semi-circles are drawn on PQ and QS as diameters as shown in the figure below. Find the area of the shaded region.

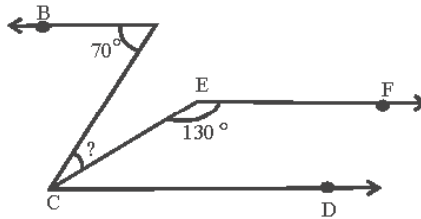


- (a)  $39.71 \text{ cm}^2$       (b)  $37.71 \text{ cm}^2$       (c)  $101 \text{ cm}^2$       (d) None of these

57. A regular pentagon has \_\_\_\_\_ lines of symmetry and measures each of its angles.

- (a) 5;  $108^\circ$       (b) 5;  $180^\circ$       (c) 6 ;  $107^\circ$       (d) None of these

58. In the figure below, if  $AB \parallel CD$  and  $CD \parallel EF$ , find  $\angle ACE$ .



- (a)  $20^\circ$       (b)  $21^\circ$       (c)  $19^\circ$       (d)  $25^\circ$

59. Monthly expenditure (in Rs.) of an average household on rent, food clothing and other miscellaneous items are 1000, 1500, 350 and 750 respectively. If this information is presented with the help of a pie chart, then the angle for clothing is

- (a)  $15^\circ$       (b)  $35^\circ$       (c)  $45^\circ$       (d)  $60^\circ$

60. Points A and B are 60 km apart. One bus starts from A and another bus (b) starts from B at the same time. If they go in the same direction, they meet in 6 hours and if they go in opposite directions they meet in 2 hours. The speed of the bus moving faster is

- (a) 10 km / hr      (b) 20 km / hr      (c) 30 km / hr      (d) 40 km / hr