SPECIMEN QUESTIONS FOR

CLASS - 6

Class : 6

1. In a city the average temperature of a week was 32.6°C. During that week the average temperature from Tuesday to Saturday, was 34°C. What was the average temperature of Sunday and Monday?
   (a) none of these (b) 28.1°C
   (c) 29°C (d) 29.1°C
2. The length of a side of a square plot of land is 32 m. The length of a rectangular plot of land is 56m and its perimeter is equal to that of the square plot. What is the breadth and area of the rectangular
   (a) none of these (b) 28 m 1000 sq m
   (c) 28 m, 1008 sq m (d) 27 m 1008 sq m
3. On the Republic Day, your game teacher has arranged all the students of your school at different drills in 12, 15, and 20 lines. At one time all the students were arranged in a perfect square as well. Find the least possible number of students present in the school on that day.
   (a) 900 (b) 800 (c)700 (d) none of these
4. For flood relief, each student of your class has contributed as many rupee as the number of students in your class. The total collection is Rs. 1369. How many students are there in your class.
   (a) 33 (b) 39 (c) 37 (d) 36
5. There were 200 mangoes in a basket, out of them, x mangoes were found rotten. The remaining mangoes were equally distributed among 7 members of a club. How many mangoes did each receive?
   (a) $\frac{200-x}{y}$ (b) $\frac{200-y}{x}$
   (c) $\frac{220-x}{y}$ (d) none of these
6. The distance between Kolkata and Diamond Harbour is 3y km. If the speed of a train is 60 km. per hour. How much time will if take to run from kolkata to Diamond Harbour.
   (a) $\frac{y}{10}$ hour (b) $\frac{y}{20}$ hour
   (c) $\frac{y}{25}$ hour (d) $\frac{y}{15}$ hour
7. Simplify : $-1-\left[-1-\left\{-1-\left(-1-1\right)\right\}\right]$
   (a) none of these (b) –1 (c) 0 (d) 1
8. Which lowest number is divisiable by 24, 32, and 36 as there are consequtively reminder as 19, 27 and 31?
   (a) 283 (b) 823 (c) 382 (d) 238
9. Which greatest number is divisiable by 38, 45 and 52 as there we get consequitively reminder as 2, 3, 4.
   (a) 7 (b) 6 (c) 9 (d) 8
10. Find the lowest number which is divisiable by 72, 90, 120.
    (a) 260 (b) 630 (c) 360 (d) 620
11. Find the L.C.M of $4\frac{1}{2}, 3, 10\frac{1}{2}$
    (a) $40\frac{1}{2}$ (b) 63 (c) 36 (d) $30\frac{1}{2}$
12. A ball jumps 0.3 of the height from which it is dropped. If it is allowed to fall from a height of 180 metres, find the height to which it will rise after the third jump.
    (a) 4.3 m (b) 4.9 m (c) 4.86 m (d) 4.71 m

13. Construction of 90m of a 150m long road has been completed. What part of the road is still incomplete ?
(a) 2/5 (b) 3/16 (c) 4/15 (d) 2/3

14. Convert 153/63 into decimal number.
(a) $3 \cdot 8 9 \dot{2} \dot{1} 5$ (b) $2 \cdot 4 2 \dot{1} \dot{7} 2 \dot{3}$
(c) $4 \cdot 3 \dot{5}$ (d) $2 \cdot \dot{4} 2 8 5 7 \dot{1}$

15. In a square box for keeping homeopathic medicine, there are holes for keeping 841 vials of medicines. The holes have been so arranged that there are as many rows as the number of holes in each row. How many rows are there in the box ?
(a) 29 (b) 31 (c) 50 (d) 27

16. Find the smallest four digit perfect square number.
(a) 2096 (b) 1024 (c)1000 (d) 1926

17. $3x$ meter $2y$ centimeter = How many kilometres ?
(a) $\frac{3x+2y}{10000}$ (b) $\frac{3x+2y}{100000}$
(c) $\frac{300x+2y}{100000}$ (d) $\frac{3x+200y}{100000}$

18. Rabi has x marbles. Ratul has 5 less than thrice of Rabi's marbles. But Ratul has lost y marbles and he has given z marbles to his brother. How many marbles are left with him ?
(a) x – 5y – z (b) 3x – y – z – 5
(c) $\frac{3x-5y+z}{5}$ (d) None of these.

19. The distance between Gouripur and Kolkata is x km. Kajol sets out from Gouripur by bus towards Kolkata and travels a distance of y km. Then she reaches Kolkata by train. If the speed of bus is a km. per hour and that of train is b km per hour, what is the total time taken for the whole journey ?
(a) $\frac{y}{a}+\frac{x}{b}$ (b) $\frac{y-x}{a}+\frac{x}{b}$
(c) $\frac{y}{a}+\frac{x-y}{b}$ (d) $\frac{x+y}{a}+\frac{y}{b}$

20. The price of a table is Rs. 2x/7 , that of a chair Rs $3p/4$ and that of an alumirah Rs. y. How much will be the total cost of 3 tables, 5 chairs and 2 almirahs altogether ?
(a) $\frac{x+y+p}{3+5+2}$ (b) $\frac{3x+5y+2p}{10}$
(c) $\frac{2x+3p+y}{10}$ (d) $\frac{6x}{7}+\frac{15p}{4}+2y$

21. If p = –2, q = –3, r = 4, the find the value of $\sqrt{\frac{p^2+q^2-2pq}{13-3p-2q}}$:
(a) 1/5 (b) 2/5 (c) $-\frac{1}{5}$ (d) $\sqrt{\frac{4}{5}}$

22. If $*\left(x^n\right)=nx^{n-1}$, $\psi\left(x^n\right)=\frac{x^{n+1}}{n+1}$ and
$\psi\left(ax^b\right)=a\psi\left(x^b\right)$, where x is the variable and a, b, n constants. then $\psi *\left(x^n\right)=?$

(a) $(n + 1)x^n$ (b) nx^n

(c) x^n (d) None of these

23. If n! = $n(n - 1)(n - 2)....3.2.1$ then 7! =

(a) 24 (b) 60 (c) 1200 (d) 5040

24. If x = –1, y = 2, z = –3 and p = 5, then find the value of the folowing expression $\sqrt{\frac{py+3x-3yz}{p+y+2z}}$

(a) 5 (b) 1/5 (c) 4 (d)1

25. The age of Mouli 3 years ago was 'x' years. The present age of Mohan is 2 years more than the present age of Mouli and the present age of Soumya is twice the sum of the ages of Mouli and Mohan 5 years ago. What is the sum of their present ages ?

(a) (6x + 4) years (b) 6x years

(c) (6x + 4 / 3) years (d) None of these

26. Divide Rs. 1185 among 5 men, 8 women and 15 boys so that 2 men got as much as 5 boys and 2 women got as much as 3 boys. How much does each women get ?

(a) Rs. 75 (b) Rs. 30

(c) Rs. 45 (d) None of these

27. 

How many triangles are there in the adjoining figure ?

(a) 2 (b) 4 (c) 6 (d) 5

28. Find the number between 800 and 900 which when divided by 46 and 69 will leave a remainder 5 in each case?

(a) 833 (b) 800 (c) 835 (d) 828

29. Simplify—

$-x - [-x - \{-x - (-x - x)\}]$

(a) –2x (b) x^2 (c) x (d) – x

30. A man has purchased x Mathematics books with Rs. a and y Geography books with Rs. b. What is the average price of the books ?

(a) $\frac{a+b}{x+y}$ (b) $\frac{a+b}{xy}$ (c) $\frac{ab}{xy}$ (d) $\frac{ax+by}{x+y}$

31. In a competition girls of Bidhubhusan school have correctly answered 9 questions out of 22,where as the girls of Bagnan school have correctly answered 15 questions out of 35. Which school won the competition and what us their parcentage of score?

(a) Bagnan school, $67\frac{6}{7}\%$ (b) Bagnan school $42\frac{6}{7}\%$

(c) Bidhubhusan school, $67\frac{6}{7}\%$ (d) Bidhubhusan school, $42\frac{6}{7}\%$

32. At a function held in a city, 1300 visitiors had attnted in the first year. Next year the number of visitors was increased by 0.7 part. In the third year the number of visitors was 0.3 part less than the previous year. How many visitors had attended the functions in third year? What is the percentage increase or decrease in the number of visitors in the third year in comparison to that in the first year?

(a) 1547; 20% decrease (b) 1547; 19% increase

(c) 1547; 19% decrease (d) 1542; 20% increase

33. Simplify—

$$4\frac{1}{2}\times\frac{2\frac{2}{5}\div\frac{5}{8}}{1\frac{1}{5}\text{ of }\frac{5}{8}\div 8\frac{1}{3}}\times\frac{2}{5}$$

(a) $5\frac{2}{3}$ (b) $3\frac{1}{3}$ (c) $2\frac{1}{3}$ (d) $2\frac{2}{5}$

34. The present age of Debarati is x years. What was the age of Hasin 5 years ago if she is 5 years younger than Debarati? What will be Hasinas age 7 years hence?

(a) (x – 8) years (x + 2) years (b) (x – 10) years—(x +12) years

(c) (x – 10) years (x + 3) years (d) none of these

35 . Simplify : –

$$1+\frac{1}{3+\frac{1}{3+\frac{1}{3}}}\div\left(\frac{1}{3}+10\frac{2}{3}\,of\,\frac{1}{11}\right)$$

(a) $3\ \frac{3}{10}$ (b) $3\frac{4}{5}$ (c) $1\ \frac{3}{5}$ (d) 2

36. The formula of H. C. F of more than one fraction in _____.

(a) $\frac{H.C.F\ of\ numerator}{L.C.M\ of\ denominator}$ (b) $\frac{L.C.M\ of\ numerator}{H.C.F\ of\ denominator}$

(c) $\frac{H.C.F\ of\ numerator}{L.C.M\ of\ numerator}$ (d) None of these.

37. $3x$ meter $2y$ centimeter = How many kilometres ?

(a) $\frac{3x+2y}{10000}$ (b) $\frac{3x+2y}{100000}$ (c) $\frac{300x+2y}{100000}$ (d) $\frac{3x+200y}{100000}$

38. The price of a table is Rs. $\frac{2x}{7}$, that of a chair Rs3p/4 and that of an alumirah Rs. y. How much will be the total cost of 3 tables, 5 chairs and 2 almirahs altogether?

(a) $\frac{x+y+p}{3+5+2}$ (b) $\frac{3x+5y+2p}{10}$ (c) $\frac{2x+3p+y}{10}$ (d) $\frac{6x}{7}+\frac{15p}{4}+2y$

39. If p = –2, q = –3, r = 4, the find the value of : $\sqrt{\frac{p^2+q^2-2pq}{13-3p-2q}}$

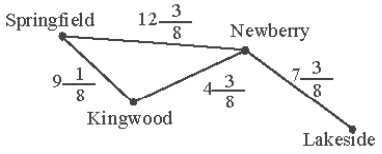
(a) $\frac{1}{5}$ (b) $\frac{2}{5}$ (c) $-\frac{1}{5}$ (d) $\sqrt{\frac{4}{5}}$

40. If $*\left(x^n\right)=nx^{n-1}$, $\psi\left(x^n\right)=\frac{x^{n+1}}{n+1}$ and $\psi\left(ax^b\right)=a\psi\left(x^b\right)$, where x is the variable and a, b, n constants.

then $\psi*\left(x^n\right)=?$

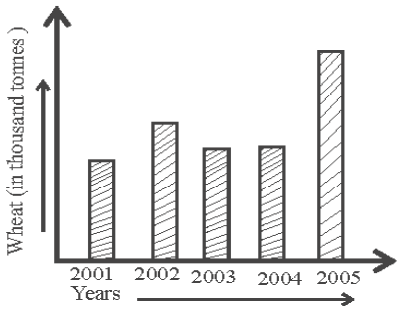
(a) $(n+1)x^n$ (b) nx^n (c) x^n (d) None of these

41. Using the paths shown, how long is the shortest route from Springfield to Lakeside ?



(a) $19\frac{3}{4}$ mi (b) $20\frac{7}{8}$ mi (c) $23\frac{1}{8}$ mi (d) None of these

42 Bar graph given below shows the amount of wheat purchased by government during the year 2001-2005.



Read the bar graph and answer the questions

(i) In which year was the wheat production maximum ?

(a) 2001 (b) 2003 (c) 2004 (d) 2005

(ii) In which year was the wheat production minimum ?

(a) 2002 (b) 2001 (c) 2003 (d) 2005

43. Find the value of : $\frac{a-c}{(a-b)(x-a)} + \frac{b-c}{(b-a)(x-b)}$

(a) $\frac{x-c}{(x-a)(x-b)}$ (b) $\frac{x}{(a-b)(b-c)}$ (c) $\frac{x-a}{(a-b)(b-c)}$ (d) None of these

44. If '+' stands for 'division', '–' stands for 'equal to', '×' stands for 'addition', '÷' stands for 'greater than', '=' stands for 'less than', '>' stands for 'multiplication' and '<' stands for 'subtraction', then the given choices which one is correct?

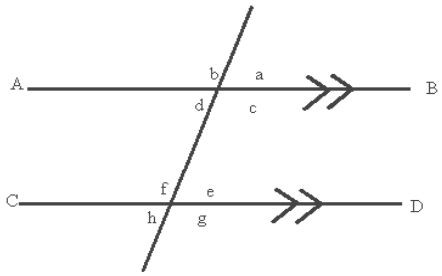
(a) $5 + 2 \times 1 = 3 + 4 > 1$ (b) $5 > 2 \times 1 = 3 > 4 < 1$

(c) $5 \times 2 < 1 - 3 < 4 \times 1$ (d) $5 < 2 \times 1 \div 3 > 4 \times 1$

45. If $\frac{2a+b}{a+4b} = 3$ then find the value of $\frac{a+b}{a+2b}$

(a) 10/9 (b) 10/7 (c) 5/9 (d) 2/7

46. Lines AB and CD are parallel to one another. Now, choose the correct option with respect to the given diagram.



(a) Only 'a'–'d' and 'b' – 'c' are vertically opposite angles

(b) Only 'g'–'c' and 'h' – 'd' are corresponding angles

(c) Only 'd'–'f' and 'e' – 'c' are interior angles

(d) None of these

47. $\frac{0.04}{0.03}$ of $\frac{\left(3\frac{1}{3} - 2\frac{1}{2}\right) \div \frac{1}{2} \text{ of } 1\frac{1}{4}}{\frac{1}{3} + \frac{1}{5} \text{ of } \frac{1}{9}} = ?$

(a) 1 (b) 5 (c) $\frac{1}{5}$ (d) $\frac{1}{2}$

48. Arranging the following fractions in dereasing order we get the fractions : $\frac{3}{8},\frac{5}{6},\frac{2}{4},\frac{1}{3},\frac{6}{8}$

(a) $\frac{6}{8},\frac{2}{4},\frac{5}{6},\frac{1}{3},\frac{3}{8}$ (b) $\frac{5}{6},\frac{6}{8},\frac{2}{4},\frac{3}{8},\frac{1}{3}$ (c) $\frac{1}{3},\frac{3}{8},\frac{2}{4},\frac{6}{8},\frac{5}{6}$ (d) None of these

49. What type of a decimal number is p ? (p =22/7)

(a) Exact decimal (b) Recurring decimal

(c) May be (a) or (b) (d) None of (a) and (b)

50. The product of these two :

$43p^{10}q^5r^{15} \times 30p^4q^4s^{10}$

(a) $1290\ p^{14}q^8r^{15}s^{10}$ (b) $1290\ p^{14}q^9r^{15}s^{10}$ (c) $1290\ p^{20}q^9r^{14}$ (d) $1290\ p^{14}q^rs^{10}$

51. Simplify : $\sqrt{\left[\left\{(a+b)^2\right\}^3\right]^4} = ?$

(a) $(a+b)^{12}$ (b) $(a+b)^{24}$ (c) $(a+b)^3$ (d) $(a \quad b)$

52. Prime factorization of 10080 in powers is :

(a) $2^3 \times 3^4 \times 5^3 \times 7$ (b) $2^5 \times 3 \times 5^2 \times 7^2$

(c) $2^3 \times 3^2 \times 5^2 \times 7$ (d) $2^5 \times 3^2 \times 5 \times 7$

53. If X is a positive number, then which of the following fractions has the greatest value?

(a) $\frac{x+2}{x+3}$ (b) $\frac{x+1}{x}$ (c) $\frac{x}{x}$ (d) $\frac{x}{x+1}$

54. The present age of Rahul is y years and his father is three times older than him 17 years ago what was the sum of their ages ?

(a) $y + 3y$ (b) $y + 3y - 34$ (c) $y + 3y - 17$ (d) $(y + 3y) \times 17$

55. If $x = \sqrt{8+\sqrt{8+\sqrt{8+.....}}}$ and then $y = \sqrt{8-\sqrt{8-\sqrt{8-.....}}}$

(a) $x+y=1$ (b) $x + y + 1 = 0$ (c) $x-y = 1$ (d) $x - y + 1 = 0$

56. The average are of two boys and their father is greater than the average age of those two boys and their mother by 3 yr. The average age of the four is 19 yr. If the average age of the two boys is $5\frac{1}{2}$ yr, then find the age of the father and mother.

(a) 37 yr, and 28 yr (b) 47 yr and 38 yr (c) 50 yr and 41 yr (d) 35 yr and 32 yr

57. In one day four men have respectively completed 3/14,4/7, 1/21 and 1/35 part of a work. What part of the work has been completed together by them in one day?

(a) 180/217 (b) 182/210 (c) 180/211 (d) 181/210

58. 10 labours took 30 days to construct a small building. If 17 labourers would have been engaged for the construction. How much time they would have taken? plot of land?

(a) $17\frac{12}{17}$ days (b) $17\frac{10}{17}$ days (c) $17\frac{11}{17}$ days (d) $18\frac{11}{17}$ days

59. At a function held in a city, 1300 visitiors had attnted in the first year. Next year the number of visitors was increased by 0.7 part. In the third year the number of visitors was 0.3 part less than the previous year. How many visitors had attended the functions in third year? What is the percentage increase or decrease in the number of visitors in the third year in comparison to that in the first year?

(a) 1547; 20% decrease (b) 1547; 19% increase

(c) 1547; 19% decrease (d) 1542; 20% increase

60. To organise a picnic, each member at a society had subscribed as many ten rupee notes as the number of members. The total cost incurred for the picnic was Rs. 3000, which is Rs. 110 more than the total subscribed amount. How many members were there in the society.

(a) 19 (b) 17 (c) 20 (d) none of these