Class 8 Mathematics - Sample Paper Set II

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Time allowed: **3 hours;** Maximum marks: **90**

General Instructions:

a) All Questions are compulsory
b) The Question Paper consists of 42 Questions divided in to four sections A, B, C and D
c) Section- A comprises of 15 questions of one mark each
d) Section- B comprises of 11 questions of two mark each
e) Section- C comprises of 11 questions of three mark each
f) Section- D comprises of 5 questions of Four mark each
g) The use of calculator is not permitted.

Section – A

Fill In The Blanks:

1. Discount = ……………………… - ………………………

2. 324 is the square of number…………………………

3. The additive inverse of -8/21 is…………………………

4. The Range of Data 6,8,16,25,7,22,26,31 is………………………

5. The angles of a quadrilateral are in a ratio of 1:2:3:4. The smallest Angle is ………………….

6. A jacket was sold for Rs. 1,120/- after allowing a discount of 20%. The Marked Price of Jacket is …………………

7. The Digit in Tens place of a two digit number is 3 more than the digit in unit place. If unit place is x then the number is……………………

Choose The Correct Answer:

8. Which of the following can be four interior angles of a quadrilateral

$a)140^0,40^0,20^0,160^0$ $b)270^0,150^0,30^0,20^0$

$c)40^0,90^0,70^0,60^0$ $d)110^0,40^0,30^0,180^0$

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9. The Reciprocal of $\dfrac{-3}{8} * (\dfrac{-7}{13})$ is

   a) -104/21   b) 104/21   c) 21/104   d) -21/104

10. If the diagonals of a quadrilateral are equal and bisect each other then the quadrilateral is a

    a) Rhombus   b) Square   c) Rectangle   d) Parallelogram

11. $1m^3 = ...cm^3$ Choose the correct option

    a) 1000   b) 10000   c) 1, 00,000   d) 10, 00,000

12. The Value of $\sqrt{248 + \sqrt{52 + \sqrt{144}}}$ is
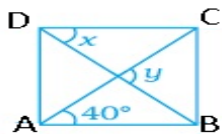
    a) 14   b) 16   c) 12   d) 18

13. The sum of three consecutive multiples of 7 is 357. Find the smallest multiple?

    a) 112   b) 116   c) 126   d) 119

14. To gain 25% after allowing a discount of 10% a shopkeeper must mark the price of an article which cost him Rs. 360/- as

    a) 450   b) 460   c) 500   d) 490

15. In given figure, ABCD is a rhombus, then the value of y-x will is

    a) 40^0 b) 50^0 c) 20^0 d) 30^0

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Section - B

16. Solve:

a) $\frac{1}{2}(x+1)+\frac{1}{3}(x-1)=\frac{5}{12}(x-2)$ b) $0.16(5x-2)=0.4x+7$

17. A Mobile worth Rs. 5400/- is offered for sale at Rs. 4500/-. Find the discount offered during the sale in percentage.
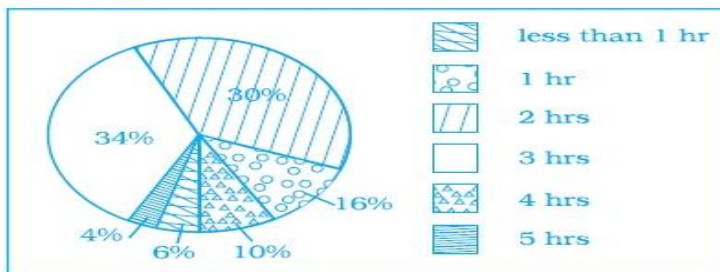
18. Using distributive law, find the squares of following
    a) 102   b)   71

19. Simplify each of following with suitable property-

a) $[\frac{1}{5}*\frac{2}{15}]-[\frac{1}{5}*\frac{2}{5}]$ b) $-\frac{3}{5}*[\frac{3}{7}+(\frac{-5}{6})]$

20. Given bellow is a pie chart showing the time spent by a group of 350 children in different games. Observe it and answer the questions:

    a. How many children spend more than 2 hours in playing games?
    b. How many children spend atleast 1 hour in playing games?

21. Solve the following

a) $\{(5^2+(12^2)^{1/2})\}^3$ b) $\sqrt[3]{27}+\sqrt[3]{0.008}+\sqrt[3]{0.064}$

22. The adjacent angles of a parallelogram are $(2x-4)^0$ and $(3x-1)^0$. Find the measures of all angles of parallelogram.

23. Neetu takes some flowers in a basket and visits three temples one by one. At each temple she offers one half of the flowers from the basket. If she is left with 3 flowers at the end. Find the numbers of flowers she had in the beginning.
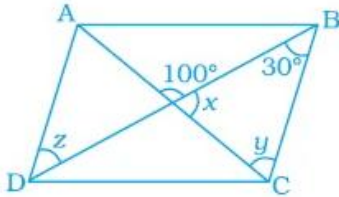
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24. Major wishes to draw-up his 7500 soldiers in the form of a square. After arranging, he found out that some of them are left out. How many soldiers were left out?

25. A playground of a town is in the form of a kite. The Perimeter is 108 meters. If one of its sides is 26 meters, What are the length of other thee sides?

26. Rahul walks 12 meter north from his house and turns west to walk 35 meter to reach his friend's house. While returning, he walks diagonally from his friend's house to reach back to his house. What distance he did cover while returning?

Section - C

27. The marked price of an article is Rs. 500/- A shopkeeper gives a discount of 5% and still makes a profit of 25%. Find the cost of that article?

28. Construct a rhombus ABCD with a side 7.5 cm and one diagonal 6 cm.

(Or)

Construct a Parallelogram whose two sides are 4 cm, 5cm and one angle is 70^0.

29. Vikas has to cut out circles of a diameter $1\frac{1}{4}$ cm from a rectangular aluminum strip of imenstion $8\frac{3}{4}$ and $1\frac{1}{4}$. How many full circles vikas cut? Also find out the wastage of aluminum strip?

(Or)

Deepak, Rahul and Sonu received a total of Rs. 2,016/- as a monthly allowance from their mother such that Sonu gets ½ of what Deepak gets and Rahul gets $1\frac{2}{3}$ times Sonu's share. How much money do the three brothers get individually?

30. Construct a frequency distribution table for the following weights of 35 children (in kilogram), using equal class intervals, one of them is 40 -45 (45 not included) 30, 40, 45, 32, 43, 50, 55, 62, 70, 70, 61, 62, 53, 52, 50, 42, 35, 37, 53, 55, 65, 70, 73, 74, 45, 46,58,59,60,62,74,34,35,70,68.
    a) How many classes are there in frequency distribution table?
    b) Which weigh group has the highest frequency?
    c) Which weight group has the least frequency?

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31. Three numbers are in the ratio of 1:2:3 and the sum of their cubes are 4500. Find the numbers.

32. In Given Parallelogram ABCD, find the value of x, y and z

33. An average urban Indian uses approx. 150 liters of water per day as-

Activity	Water usage in Liters (Per Person/ Day)
Drinking	3
Cooking	4
Bathing	20
Sanitation	40
Washing Cloths	40
Washing Utensils	20
Gardening	23
Total	**150**

   a) What percent of water is used for bathing and sanitation together per day?
   b) How much less percent of water is being used for cooking in compression to that used for bathing?
   c) What percent of water is used for drinking, cooking and gardening together?

34. A survey was carried out to find the favorite drink preferred by a group of young people. From this pie chart answer the following questions:

   a) Which type of beverage is liked by the maximum number of people
   b) If 45 people like tea then How many people were surveyed?
   c) Find the no. of people who like the coffee.

35. In a two digit number, digit in units place is twice the digit in tens place. If 27 is added to it, digits are reversed. Find the number?

36. Find the three Rational Numbers lying between 3 and 4.

37. The ratio between exterior angle and interior angle of a regular polygon is 1:5.Find the number of sides of the polygon.
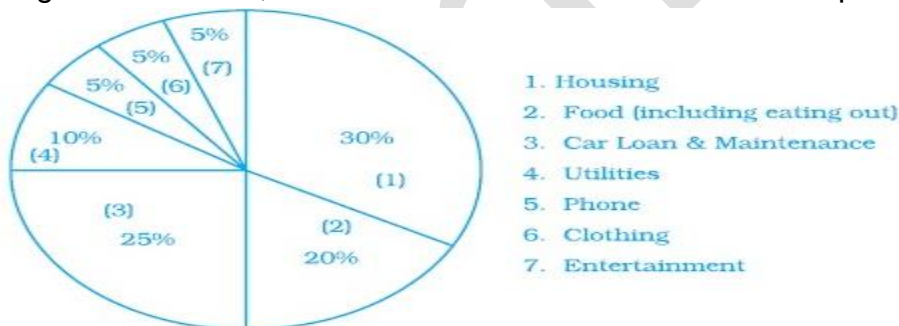
Section - D

38. A lady went to a bank with Rs.1, 00, 000. She asked the cashier to give her Rs. 500 and Rs. 1,000 Notes in return. She got 175 currency notes in all. Find the number of each kind of currency notes?

(Or)

There are 40 passengers in a bus. Some with Rs. 3/- ticket and remaining with Rs. 10/- ticket. The total collection from these passengers is Rs. 295/-. Find how many passengers have ticket worth Rs. 3/-?
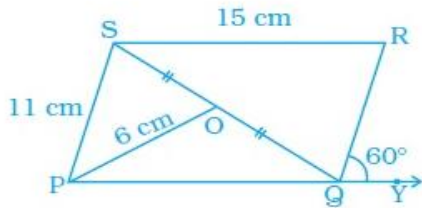
39. A financial Counselor gave a client this pie chart describing how to budget his income. If the client brings home Rs. 50,000 each month. How much he should spent on each category?

1. Housing
2. Food (including eating out)
3. Car Loan & Maintenance
4. Utilities
5. Phone
6. Clothing
7. Entertainment

40. Dheeraj gave his car for service at service station on a particular date and was charges as follows-

   a) 3.20 litres of engine oil@ Rs. 178.75/ Litre and VAT @ 14%.
   b) Rs. 1208.12 for all other services and VAT @ 12.5%
   c) Rs. 2395.80 as labour charges and service tax@10%
   d) 3% cess on service Tax.
   e) Calculate the total bill amount.

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41. In given parallelogram PQRS, O is the midpoint of SQ. Find $\angle S, \angle R$, PQ, QR and diagonal PR.

42. The perimeter of a parallelogram is 160 cm. One of its side is greater than the other side by 20 cm. Find the length of all sides of the parallelogram? Also find the measures of all angles if the measure of one angle is 70 ^{0}

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