**VIII CLASS MATHS**

 **Practice Paper - 2**

  **Section -A**

1] Find the value; 3125-2/5

2] How many terms does a trinomial contain?

3] Name a geometrical figure which has four lines of symmetry and rotational symmetry of order 4.

4] Write the order of rotational symmetry for a rectangle?

 **Section -B**

5] Solve for x : 1/(243)x=33

6] Evaluate [5{81/3+271/3}3]1/4

7] Write the following polynomial in standard form and also write down its degree. [x+2/3][x+3/4]

8] Using factor method, divide [x2+2x-24] by [x+6]

9] Solve for t ; $\frac{3t-5}{7t+1}$ = -9

10] Give the order and angle of rotational symmetry of the given figure at the marked point C.

 **Section -C**

11] If 3x+3x+1=108, find the value of [9x]1/x

12] Nitin deposited Rs. 32000 in a bank, where the interest is compounded quarterly. If the rate of interest is 5% per annum, what amount will he receive after 6 months?

 Or

At what rate % will Rs. 8000 amount to Rs. 9261 in 3 years compounded annually?

13] Using division, find weather or not the polynomial [3x+1] is a factor of the polynomial [9x3+18x2-x-2]

 Or

Find the quotient and remainder when [4x+2x3-1] is divided by [2x-2]

14] Solve the following equation : $\frac{\left(4+x\right)(5-x)}{\left(2+x\right)(7-x)}$=1

15] The ages of neha and divya [in years] are in the ratio 7:5. Find their present ages.

 Or

Solve the following equation : $\frac{2x-3}{5}$ + $\frac{x-3}{4}$ = $\frac{4x+1}{7}$

16] The measures of the two adjacent angles of a parallelogram are in the ratio 5:3. Find the measures of each of the angles of the parallelogram.

17] ABCD is a quadrilateral in which AB//CD and AB=CD. Show that ABCD is a parallelogram.

18] Construct a quadrilateral ABCD[using ruler and compass only] in which AB=CD=5cm, BC=AD=4cm and the diagonal BD=6.5cm.

19] A bag contain 5 red balls, 8 white balls, 4 green balls and 7 black balls. If one ball is drawn at random, find the probability that it is:

[i] white ball

[ii] green ball

[iii] not a red ball

20] Following is the distribution of weights[in kg] of 40 students of class VIII of a school.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Weight(in Kg) | 35-40 | 40-45 | 45-50 | 50-55 | 55-60 | 60-65 |
| No of students | 3 | 7 | 9 | 12 | 7 | 2 |

Draw a histogram for above data.

 OR

Letters of the English alphabet are written on 26 separate slips and put in a bag. One slip is chosen from the bag. What is the probability of :

 [a] getting the letter Q ?

 [b] getting a vowel?

 [c] getting a letter preceding J

. **Section -D**

21] Simplify (25)-1/2X(9)-1/2/(125)-1/3X(32)-3/5 X [81/16]-3/4

22] I borrowed Rs 8000 from Geeta at 5% per annum simple interest for 3 years. Had I borrowed this sum at 5% per annum compounded annually, what extra money would I have to pay?

23] On a news channel Riya was watching a show on International Day of elderly persons which is observed every year on October 1. She was suffering of old people so she decided to open an old age home. For this she took a loan of Rs. 125000 from a bank to buy a plot of land. If the rate of interest is 12% per annum compounded half yearly, find amount paid by Riya after 11/2 years. What value is being reflected by her action?

24] The population of a town increases at trate of 7% every year. If the present population is 90000, what will it be after 2 years? Also find the total increase in population.

25] Using long division method, divide polynomial [6x3+4x4-27x3-7x2-27x -6] by [2x2-3] and hence find the quotient and the remainder.

26] Two trains start simultaneously from two stations 300 km apart and move towards each other. The speed of one train is more than the other by 20km/hr. If the distance between the trains after 2 hours [before crossing each other] is 20 km, find the speed of the trains.

27] The lengths of the diagonals of a rhombus are in the ratio 5:12, if its perimeter is 104 cm, find the lengths of the sides and diagonals of the rhombus.

28] In the following figure, find the values of x, y, z and t.

 Or

In the following figure ABCD and AEGF are parallelograms

If, angle C= 550 find the values of x, y, z and t.

29] Construct [using ruler and compass only] a quadrilateral PQRS in which PQ=5cm.QR=4 cm, RS=4.5cm, Q =900, R =1350

30] A fair die is thrown once. What will be the probability of getting

 a)an even number b) a multiple of 2 but not multiple of 4 c) a number greater than3 d) a factor of 6.

 31] Construct a freqency table for the following water tax bills(in rupees) of 30 houses in a locality using the equal class intervals, two of them are 15-30,30-45.

30 33 45 54 74 78 108 112 66 76 95 96 102 110 88

88 40 14 20 15 35 44 66 75 84 74 112 14 34 44

a)What is class size ? b) Write the class mark of class interval 15-30?

 OR

 The following table shows the colour preferred by a group ofpeople. Draw a pie chart showing the information.

|  |  |
| --- | --- |
| **Colours** |  **Number of people** |
| Blue |  18 |
|  Green |  9 |
|  Red |  6 |
|  Yellow |  3 |

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