CLASS –VIII

INSTRUCTIONS

This is a MODEL PAPER of National Maths Hunt (NMH). This question paper contains 20 questions. For each correct answer four marks will be awarded. There is no negative marking, for each unattempted question zero marks will be awarded. Use the provided OMR sheet for answering. Use HB pencil/ball point pen to darken the circles. If you wish to change your answer, erase the already darkened circle completely and then darken the appropriate circle. Use of calculator and mobile phone is strictly prohibited during the examination.

17. **Statement 1**: When the interest is compounded half yearly, the number of conversion periods in year is four.
    Statement 2 : Overhead charges, if any, are sometimes included in the cost price.
    Choose the correct response for the above statements
    a) True,true   b) False,true
    c) True, false   d) False, false

18. If x and y are directly proportional and when x = 13, y = 39, which of the following is not a possible pair of corresponding values of x and y?
    a) 1 and 3   b) 17 and 51   c) 0 and 10   d) 6 and 18

19. Area of a rhombus is equal to:
    a) $\frac{1}{2} \times d_1 \times d_2$ b) $\frac{1}{2} \times d_1 \div d_2$
    c) $2d_1 d_2$ d) $d_1 d_2$

20. What is the maximum number of obtuse angles that a quadrilateral can have ?
    a) 1   b) 2   c) 3   d) 4

20. The factors of the term $-xy^2$ are
    a) x × y × y   b) –1 × y × y
    c) –1 × x × y   d) –1 × x × y × y

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ANSWERS

1.a	2.c	3.c	4.a	5.c	6.b	7.d	8.b	9.a	10.c
11.c	12.b	13.b	14.a	15.b	16.a	17.d	18.c	19.a	20.b

1. Water level in a well was 20m below ground level. During rainy season, rain water collected in different water tanks was drained into the well and the water level rises 5 m above the previous level. The wall of the well is 1m 20 cm high and a pulley is fixed at a height of 80 cm. Raghu wants to draw water from the well. The minimum length of the rope that he can use is
   a) 17 m   b) 18 m   c) 96 m   d) 97 m

2. One packet of biscuits requires $2\frac{1}{2}$ cups of flour and $1\frac{2}{3}$ cups of sugar. Estimated total quantity of both ingredients used in 10 such packets of biscuits will be
   a) less than 30 cups   b)between 30 cups and 40 cups
   c) between 40 cups and 50 cups   d) more than 50 cups

3. A ribbon of length $5\frac{1}{4}$ m is cut into small pieces each of length $\frac{3}{4}$ m. Number of pieces will be
   a) 5   b) 6   c) 7   d) 8

4. Find the value of $\dfrac{1}{4\frac{2}{7}} + \dfrac{1}{3\frac{11}{13}} + \dfrac{1}{\frac{5}{9}}$

   a) $\dfrac{172}{75}$ b) $\dfrac{140}{29}$ c) 1   d) 98

5. If the mean of 26, 28, 25, x, 24 is 27, find the value of x.
   a) 35   b) 40   c) 32   d) 56

6. Out of 5 brands of chocolates in a shop, a boy has to purchase the brand which is most liked by children. What measure of central tendency would be most appropriate if the data is provided to him?
   a) Mean   b) Mode
   c) Median   d) Any of the three

7. Khilona earned scores of 97, 73 and 88 respectively in her first three examinations. If she scored 80 in the fourth examination, then her average score will be
   a) increased by 1   b) increased by 1.5
   c) decreased by 1   d) decreased by 1.5

8. Find the length of a diagonal of a rectangle with dimensions 20m by 15m.
   a) 15 m   b) 25 cm   c) 15 cm   d) 25 m

9. If $8x - 3 = 25 + 17x$, then x is
   a) A fraction   b) An integer
   c) A rational number   d) Cannot be solved

10. Linear equation in one variable has
    a) Only one variable with any power
    b) Only one term with a variable
    c) Only one variable with power 1
    d) Only constant term

11. For constructing a unique quadrilateral at least _____ measurements are required.
    a) Four   b) Three   c) Five   d) Six

12. If three angles of a quadrilateral are each equal to 75°, the fourth angle is
    a) 150°   b) 135°   c) 45°   d) 75°

13. Euler's formula for any polyhedron is, _____Where F stands for number of faces, V for number of vertices and E for number of edges.
    a) $F + V + E = 2$ b) $F + V - E = 2$
    c) $F \times V - E = 2$ d) $F + V - E = (-2)$

14. The distance between City A and City B on a map is given as 6 cm. If the scale represents 1 cm = 200 km, then the actual distance between City A and City B is
    a) 1200km   b) 1200m   c) 300km   d) 300m

15. The product of a monomial and a binomial is a
    a) Monomial   b) binomial   c) trinomial   d) none of these

16. Multiplicative inverse of 2^7 is
    a) 2^{-7} b) 7^2 c) -2^7 d) -7^2