NEW AL WUROOD INTERNATIONAL SCHOOL, JEDDAH

Affiliated to CBSE – New Delhi, No:5730008

Half Yearly Examination (2017 -2018)

Subject: Mathematics

Date:13.06.2017 **Set: A** **Time: 2 ½ Hours**

Class:8 Sec:____ **Max. Marks: 80**

Instructions to the Candidates:

1. Please check that this question paper contains all the printed pages.
2. All answers must be written in the space provided.
3. Do not write anything in the margin.
4. Do not leave the examination hall without handing over the answer paper to the invigilator.

SECTION – A (1x8=8)

1. Name the property used : $\frac{11}{2} \times \frac{9}{33} = \frac{3}{2}$
2. The numbers _____ and _____ are their own reciprocals.
3. Identify the LHS and RHS of $\frac{2}{3}x + 1 = \frac{7}{3}$
4. What is the sum of all exterior angles in a polygon ?
5. Define an isosceles trapezium.
6. The diagonals of a rhombus intersect at an angle of _____ .
7. The difference between the upper limit and lower limit of a class interval is called its _____ .
8. What is the least number of measures needed to construct a triangle?

SECTION – B (2x7=14)

9. Solve: $\frac{1}{4}x + \frac{1}{6}x = x - 7$

10. Convert the rational number $\frac{17}{5}$ into decimal .

11. Find the multiplicative inverse of $\frac{-9}{78} \times \frac{4}{27}$.

12. Given each interior angle of a polygon is 108°. How many sides does it have?

13. Three angles of a quadrilateral are 54° , 80° and 116° . Find the measure of the fourth angle.

14. The sum of two opposite angles of a parallelogram is 130°. Find the measure of each of its angles.

15. Given below are the heights (in cm) of 11 boys of a class :

146 , 143 , 148 , 132 , 128 , 139 , 140 , 152 , 154 , 142 , 149

Find the height of the tallest boy and the range of the given data.

SECTION – C (3x10=30)

16. The marks of a student in different subjects are given below.

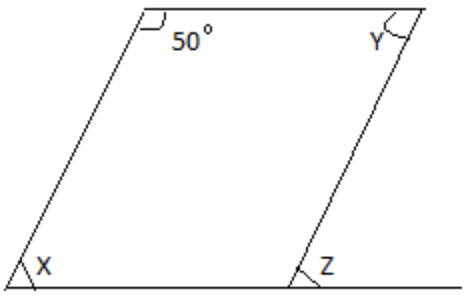
Subject	Hindi	English	Mathematics	Science	Social Science
Marks	43	56	80	65	50

Draw a bar graph from the above information.

17. Construct a parallelogram ABCD with the given measurements :

AB = 6cm , BC = 3cm , $\angle A = 60^\circ$

18. Consider the parallelogram given below and find the values of x , y , z



19. The perimeter of a kite is 40cm. What is the length of the other three sides, if the length of one of its sides is 15cm?

20. The marks obtained by 40 students of a class in an examination are given below :
8, 47, 22, 31, 17, 13, 38, 26, 3, 34, 29, 11, 22, 7, 15, 24, 38, 31, 21, 35, 42, 24, 45, 23, 21, 27, 29, 49, 25, 48, 15, 18, 27, 19, 45, 14, 34, 37, 34, 21.
Prepare a grouped frequency distribution table, starting with a class interval 0 – 10 .

21. What is the measure of ∟a if the other angles are given ? Name the polygon. 90˚ , 39˚ , 173˚ , 106˚ , a

22. Length of a rectangle is 8m less than twice its breadth. If the perimeter of The rectangle is 56m , find its length and breadth.

23. Simplify using properties : $\frac{3}{5} + \frac{7}{3} + \frac{-11}{5} + \frac{-2}{3}$

24. Use mean method to find three rational numbers between -2 and 0 .

25. Construct a quadrilateral with the measures :
AB = 5cm , BC = 4.5cm , CD = 6cm , AD = 3cm and AC = 8cm

SECTION – D (4x7=28)

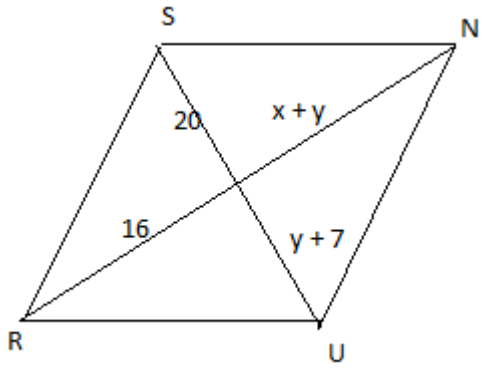
26. Convert $16.\overline{78}$ into their rational form.

27. Apply the distributive property of multiplication over subtraction and state if it holds true or not : $\frac{-9}{8} \times \left(\frac{4}{7} - \frac{9}{10} \right)$

28. Present ages of Anu and Raj are in the ratio 4 : 5 . Eight years from now The ratio of their ages will be 5 : 6 . Find their present ages.

29. Four angles of a quadrilateral are $(2x + 3)^\circ$, $(x + 7)^\circ$, $(3x - 5)^\circ$ and $(2x + 11)^\circ$. Find all the angles.

30. The following figure RUNS is a parallelogram . Find x and y.



31. Construct a quadrilateral PQRS given the following measurements :
PQ = 4.5cm , QR = 3.8cm , ∟PQR = 120˚ , ∟QRS = 100˚ , ∟QPS = 60˚ .

32.Draw a double bar graph for the given data

Year	2009	2010	2011	2012	2013
Company 1	2500	2150	2000	3000	2500
Company 2	2250	2400	2500	2300	2750