APEEJAY SCHOOL, SHEIKH SARAI-I

PERIODIC ASSESSMENT-II, 2017-18   25

CLASS-VII -C (A2)

MATHEMATICS

MAIN PAPER

Time allowed : 3 hrs.   *M.M. : 80* $\frac{72}{}$

General Instruction :

    Q. 1–Q. 10 are of 2 marks each.

    Q. 11–Q. 20 are of 3 marks each.

    Q. 21–Q. 24 are of 5 marks each.

    Q. 25–Q. 34 are of 1 mark each.

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1. Represent $\frac{-11}{3}$ on the number line.

2. The sum of two numbers is $\frac{-7}{13}$. If one of them is $\frac{14}{39}$, find the other.
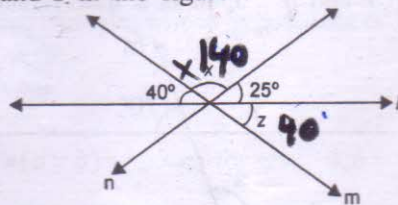
3. Express in standard form :

    (i) 25615.0489

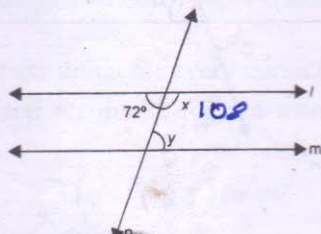   (ii) $.003586 \times 10^6$.

4. Express in exponential form :

    (a) 81

    (b) 216

5. Find the value of x and z in the figure :

6. Find x and y in the figure, if $l \parallel m$ and n is a transversal.

P.T.O.

$20\frac{1}{2} + 28 + 17\frac{1}{2} = \frac{64}{?}$

7. Find :

   (a) $\frac{15}{6}$ of a leap year.

   (b) $\frac{4}{25}$ of a km.

8. Simplify $4 \times 8 + (-12) \div 3$.

9. State Pythagoras property.

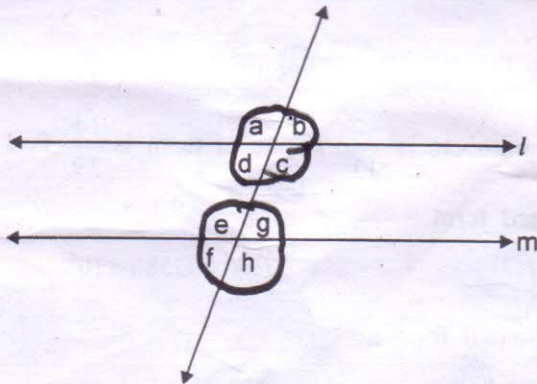10. Check, whether you can construct a triangle with two angles as 110° and 80°. If yes, why ? If, No, why ?

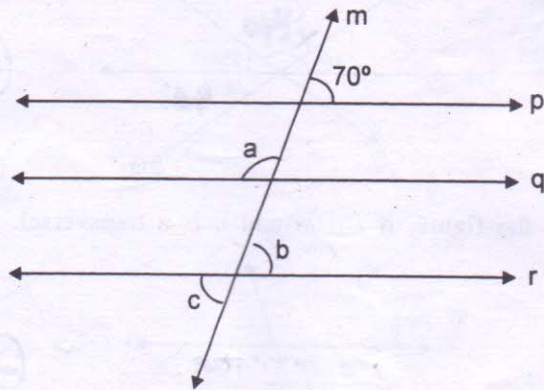11. From the figure identify ($l \parallel m$, n is a transversal)

    (a) a pair of corresponding angles. $\angle BG, \angle AR$

    (b) a pair of alternate angles.

    (c) a pair of co-interior angles.

12. In the figure $p \parallel q$, $p \parallel r$ and $q \parallel r$, m is a transversal. Find a, b, c.

(2)

13. Reduce the following into standard form :

(a) $\dfrac{-18}{45}$ (b) $\dfrac{36}{-24}$ (c) $\dfrac{-72}{-108}$

14. Arrange in descending order :

$$\dfrac{-5}{3}, \dfrac{4}{-9}, \dfrac{-4}{5}, \dfrac{1}{7}.$$

15. A two wheeler covers a distance of 330.75 km is 6.3 litres of petrol. How much distance will it cover in one litre of petrol ?

16. Simplify : $\dfrac{4^5 \times 9^5 \times x^7}{2^8 \times 3^6 \times x^5}$.

17. Simplify :

(a) $(2^{20} \div 2^{15}) \times 2^3$

(b) $(6^0 - 2^0) \times (6^0 + 2^0)$

18. In the figure find x and y.
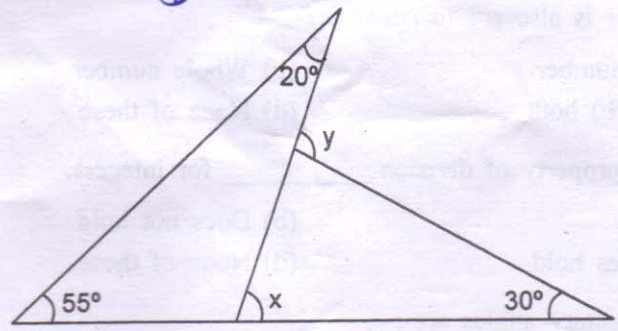
19. Construct a right angled triangle, whose hypotenuse is 7 cm long and one of its legs is 4 cm long.

20. Verify that :

$$a \times (b + c) = (a \times b) + (a \times c) \text{ for } a = -4, b = -5, c = 3$$

21. (a) If one kg of wheat costs Rs. 16.60, what will be the cost of 58.25 kg of wheat.

(b) Find the area of a rectangular sheet of paper which is $10\dfrac{2}{3}$ cm long and $5\dfrac{3}{4}$ cm broad.

22. In a class test (+3) marks are given for every correct answer and (−2) marks are given for every incorrect answer and no marks for not attempting any question.

(3) M-VII

(a) Ram scored 20 marks. If he has got 12 correct answers, how many questions has he attempted incorrectly ?

(b) Mohan scores -5 marks in the test though he has written 7 correct answers. How many questions has he attempted incorrectly ?

23. (a) Construct $\triangle ABC$ in which $BC = 4.5$ cm, $\angle B = 60°$, $\angle A = 55°$. Also construct a perpendicular from A to BC.

(b) Can <u>8 cm, 12</u> cm and 15 cm make the sides of a right triangle ? Verify also.

24. If $ABCD$ is a quadirlateral, is $AB + BC + CD + AD < 2(AC + BD)$? Show how.
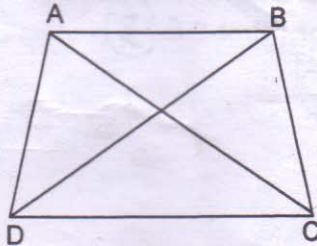
MENTAL MATHS PAPER (10)

25. Every integer is also a :

(a) Natural number   (b) Whole number

(c) (a) and (b) both   (d) None of these

26. Associative property of division _____ for integers.

(a) Holds   (b) Does not hold

(c) Sometimes hold   (d) None of these

27. All supplementary angles are :

(a) Adjacent angles   (b) Complementary angles

(c) Linear pair of angles (d) Those whose sum is 180°

28. The number of elements in a triangle are :

(a) Six   (b) Three

(c) Eight   (d) Four

29. Pythagoras theorem is applied in :

(a) Acute angled $\triangle$ (b) Obtuse angled $\triangle$

(c) Right angled $\triangle$ (d) Squares

30. Every fraction is a :

(a) Whole number

(b) Rational Number

(c) Integer

(d) Natural Number

31. Additive inverse of –4/5 is :

(a) 5/(–4)

(b) +4/5

(c) 0

(d) 1/4

32. $(-1)^{12}$ is equal to :

(a) – 1

(b) ~~1~~

(c) 0

(d) None of these

33. $(8^2)^3$ is equal to :

(a) 8^{2+3}

(b) $8^{2 \times 3}$

(c) 8^{2-3}

(d) None of these

34. If $14 \times 4 = 56$, then the value of 1.4×0.4 is :

(a) 0.56

(b) 0.056

(c) 5.6

(d) None of these

$$\frac{-4}{5} = \frac{4}{-5}$$

$$\begin{array}{r} 1.4 \\ \times 0.4 \\ \hline 5\ 6 \\ 0\ 0\ \times \\ \hline 0.5\ 6 \end{array}$$

$$80 - 4\frac{1}{2} - 1 = 74\frac{1}{2}$$

(5)

$1.0 \times 1.0 \times 1.0 \times 1.0 \times 1.0 \times 1.0 =$