GENIUS HIGH SCHOOL :: BHUVANAGIRI

PERIODIC TEST - II

Class :IX Time: 1 1/2Hrs Max marks: 40 Subject : MATHEMATICS I. Choose the correct answer 40 X 1=40 M SECTION -A 20Q attempt any 16 Q SECTION- B 20Q attempt any 16 Q SECTION -C 10Q CASE BASED QUESTIONS attempt any 8Q SECTION - A (1-20) QUESTIONS 1.The linear equation 3x-11y=10 has: a. Unique solution b. Two solutions c. Infinitely many d. No solutions 2.A line joining two endpoints is called: a. Line segment b. A ray c. Parallel lines d. Intersecting lines 3.3x+10 = 0 will has: a. Unique solution b. Two solutions c. Infinitely many solutions d. None 4.An acute angle is: a. More than 90 degrees b. Less than 90 degrees c. Equal to 90 degrees d. Equal to 180 degrees 5. The solution of equation x-2y = 4 is: a. (0,2) b. (2,0) c. (4,0)d. (1,1) 6. A reflex angle is: a. More than 90 degrees b. Equal to 90 degrees c. More than 180 degrees d. Equal to 180 degrees 7. Find the value of k, if x = 1, y = 2 is a solution of the equation 2x + 3y = k. a. 5 b. 6 c. 7 d. 8 8.A straight angle is equal to: a. 0° b. 90° c. 180° d. 360° 9.Point (3, 4) lies on the graph of the equation 3y = kx + 7. The value of k is: b. 5/3 c. 3 d. 7/3 a. 4/3

10.Two angles whose sum is equal to 180° are called:

a.	Vertically	opposite angles	b. Comp	lementary angles
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c. Adjacent angles d. Supplementary angles

11. The graph of linear equation x+2y = 2, cuts the y-axis at:

a. (2,0) b. (0,2) c. (0,1) d. (1,1)

12.Intersecting lines cut each other at:

a. One point b. Two points c. Three points d. Null

12. The graph of x = 3 is a line:

a. Parallel to the x-axis at a distance of 3 units from the origin

b. Parallel to the y-axis at a distance of 3 units from the origin

c. Makes an intercept 3 on the x-axis

d. Makes an intercept 3 on the y-axis

13.In equation, y = mx+c, m is:

a. Intercept b. Slope c. Solution of the equation d. None of the above

14.If two lines intersect each other, then the vertically opposite angles are:

a. Equal b. Unequal c. Cannot be determined d. None

15. y = 0 is the equation of

(a) a line parallel to x-axis (b) a line parallel to y-axis (c) x-axis (d) y-axis

16.x = 2, y = -1 is a solution of the line equal to :

(a) 2x + 3y = 5 (b) x + y = 5 (c) x + y = 1 (d) x - y = 9

17.An exterior angle of a triangle is 105° and its two interior opposite angles are equal. Each of these equal angles is

(a) $37 \frac{1}{2}^{\circ}$ (b) $72 \frac{1}{2}^{\circ}$ (c) 75° (d) $52 \frac{1}{2}^{\circ}$

18. The straight line 2x - 5y = 0 passes through the point :

(a) (-1, 1) (b) (3, 1) (c) (0, 0) (d) None

19. Angles of a triangle are in the ratio 2: 4 : 3. The smallest angle of the triangle is

(a) 20° (b) 40° (c) 60° (d) 80°

20.Which of the following is a linear inequality with two variables?

(a) $2x + 8y \ge 9$ (b) 8x + 9y = 0 (c) $10x + 7 \le 2$ (d) None

SECTION -B (21 – 40) QUESTIONS

21.In equation 2x=3 the value of coefficients b=

1 b) 2 c) 3 d) 0

22. The cost of 3 apples is equal to cost of 5 mangoes then

3x=5y b) 5x=2y c) 4x=3y d) 3y=5y

23. The cost of a bag is equal to cost of dozen bottles then

2x=y b) 21x=y c) x=12y d) None

24.(2,-3) is a solution of 3x + 4y + k = 0. So, the value of k must be

(a) -6 (b) 6 c) -4 d) 4

25. The cost of a pencil is thrice the cost of rubber. The equivalent linear equation in two variables of above statement is:

(a) p = 3 - r (b) p = 1/3 + r (c) p = 3r (d) p = 3 + r

26) If x = 1, y = 1 is a solution of equation 9ax + 12ay = 63 then, then a =

(a) -3 (b) 3 (c) 7 (d) 5

27.Geeta's age is 3 years more than thrice m, the age of Meeta. Write an equation of first degree to display this information.

(a) g + 3 = 3m (b) g - 3 = 3m (c) g + 3m + 3 = 0 (d) g - 3m + 3 = 0

28. Which of the following is a linear inequality with two variables?

(a) $2x + 8y \ge 9$ (b) 8x + 9y = 0 (c) $10x + 7 \le 2$ (d) None

29. If x+2y=3 coefficient x =

a) x b) y c) 1 d) 2

From the below figure solve questions 34 to 37



30. Complementary angles	a) > 180°	34. Corresponding angles	a) 2 & 6
31Supplementary angles	b) 90° > x° >180°	35 Adjacent angles	b) 5 & 6
32. Obtuse angle	c) (40° ,50°)	36. Alternate interior angles	c) 2 & 8
33. Reflex angle	d) (130°, 50°)	37. Alternate exterior	d) 5 & 3

38. 3x + 10 = 4x+9 then x = ?a) 1 b) 2 c) 3 d) 4 39. x + 3 = 7 - 3x, then x = ?a) 1 b) 2 c) 3 d) 4 40. If a = 3, b = 4, c = 5 then ax + by + c = k is a) 4x + 3y + 5 = k b) 3x + 4y + 6 = k c) 3x + 4y + 5 = k d) 0

SECTION - C (41 -50) QUESTIONS

Case study--1





Amit is planning to buy a house and the layout is given below. The design and the measurement has been made such that areas of two bedrooms and kitchen together is 95 sq.m.

^{46.} Area of bedroom 1 =

a). x.. sq. m b) 5x. Sq.m c).10x. Sq.m d). 5y. Sqm

47. Area of two bedrooms =

a). X.. sqm b) 5x. Sq.m. c).10x. sq.m. d). 5y. Sq.m

48. Total area of living house =

a). x sq. m b) 5x. Sq.m c).10x. Sq.m d) 180 Sq.m

49. Identify the equation formed for bedroom no 2 area is 25 sq m

a) 5x = y. b) 5x = 25y. c) 5x = 25. d). 5 = 25x

50. If the total area of bedroom 1 ,kitchen , bathroom is 80sq.m then equation

a) 5x+5y=80. b). 5x+5y=90. c) x+y=14. d) none