** SINDHI HIGH SCHOOL, HEBBAL**

**PERIODIC TEST - II (2023-24)**

**SUBJECT – Mathematics**

**Class: IX Marks: 50**

**Date: 1/9/2023 Reading Time: 8:30 to 8:40 am Number of printed sides: 03 Writing Time: 8:40 to 10:40 am**

**GENERAL INSTRUCTIONS:**

* This Question Paper has 5 Sections A-E.
* Section A has 8 MCQs carrying 1 mark each
* Section B has 6 questions carrying 02 marks each.
* Section C has 4 questions carrying 03 marks each.
* Section D has 2question carrying 05 marks..
* Section E has 2 case based integrated units of assessment carrying 4 marks

sub-parts of the values of 2, 1 and 1 marks each.

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|  | **SECTION A** |  |
|  | **Section A consists of 8 questions of 1 mark each.** |  |
| 1 | In the figure below, AB = DC, ABD=CDB .Which congruence rule would you apply to prove ABD CDB ?    a)AAS rule b) ASA rule c) SAS rule d) RHS rule | **1** |
| 2 | In A(2,3) , 2 indicates    a) Distance of the point from the origin b)Perpendicular distance of A from X-axis  c) Ordinate of the point d)Perpendicular distance of A from Y-axis | **1** |
| 3 | Which of the following is a solution of 7x – 5y = 35 ?  a)(10,7) b) (7,10) c) (5,7) d) (7,5) | **1** |
| 4 | In the following figure, ABCD and AEFG are two parallelograms. If ∟C = 600 then GFE =  a)300 b)600 c)900 d)1200 | **1** |
| 5 | The distance between the points (5,0) and( -3,0)  a)-3units b)5units c) 8units d) 2units | **1** |
| 6 | In PQR, R=P and QR=4cm Aand PR=5cm. Then the perimeter of the PQR is  a)10cm b) 2.5cm c)4cm d)13cm | **1** |
| 7 | In the ABC , B= . The bisectors of B and C meet at O in the interior of the triangle. Which of the following is correct?  a) OBC is equilateral. b)OBC is isosceles  c)OBC is scalene d) OBC is right triangle | **1** |
| 8 | A statement of **Assertion (A**) is followed by a statement of **Reason (R**). Choose the correct option out of the following.  **Assertion(A)** : The point of the form(a,-a) lies on the line x + y = 0.  **Reason(R** ) : Any point which satisfies the equation ax + by + c = 0 is a point on the line represented by the equation ax + by + c = 0.  (A)Both assertion A and reason R are true and reason R is the correct explanation of assertion A  (B) Both assertion(A) and reason(R) are true but reason R is not the correct explanation of assertion A.  (C) Assertion A is true but reason R is false.  (D)Assertion a is false but reason R is true. | **1** |
|  | **SECTION B** |  |
|  | **Section B consists of 6 questions of 2 marks each.** |  |
| 9 | Write four solutions of equation 2x-3y+6=0 | **2** |
| 10 | Two opposite angles of a parallelogram are (3x2)0 and (632x)0. Find all the angles of the parallelogram. | **2** |
| 11 | 6 pencils and 7 pens together costs Rs.55. Write this statement in equation form. | **2** |
| 12 | In the figure below PQRS is a rectangle. X and Y are mid points of PS and PQ respectively. Find the length of XY | **2** |
| 13 | In a parallelogram show that the bisectors of two adjacent angles intersect at right angles. | **2** |
| 14 | PQRS is a parallelogram and PL and RM are perpendiculars drawn from the vertices P and R of the parallelogram on diagonal SQ. Show that PQL | **2** |
|  | **SECTION C** |  |
|  | **Section C consists of 4 questions of 3 marks each.** |  |
| 15 | If the point (2k-3, k+2) lies on the graph of the equation 2x + 3y +15=0.Find the value of k. | **3** |
| 16 | Prove that each angle of an equilateral triangle is 600. | **3** |
| 17 | Prove that the quadrilateral formed by joining mid points of consecutive sides of a rectangle is a Rhombus. | **3** |
| 18 | In ABC, D,E and F are the mid points of sides AB,BC and CA. If AB =6cm,  BC =7.2cm and AC =7.8 cm, find the perimeter of DEF. | **3** |
|  | **SECTION C** |  |
|  | **Section C consists of 2 questions of 5 mark** |  |
| 19 | Prove that two triangles are congruent if two angles and the included side of one triangle are equal to two angles and the included side of the other triangle. | **5** |
| 20 | Represent the equation 2x+ y=7 graphically. Write point of intersection of this line with coordinate axes. Also find the area of the region bounded by this line with coordinate axes. | **5** |
|  | **SECTION D** |  |
|  | **Section E consists of two Case base study questions of 4 mark** |  |
| 21 | Mohan is a student of class IX residing in a village. One day he went to city hospital with his grandfather for a general checkup. On the way he saw a school, temple and library. After returning to his village he plotted a graph by taking a the hospital as origin and marked other three places on the graph, as per his direction of movement and distance. The graph is shown here . Observe the graph and answer the questions.  C:\Users\Mahesh\AppData\Local\Packages\5319275A.WhatsAppDesktop_cv1g1gvanyjgm\TempState\EEF80E65B8D54B757EB4A6BEE35864DF\WhatsApp Image 2023-08-01 at 21.42.20.jpg   1. Find the distance of school from Hospital.(2marks) 2. Which of the following is farthest from Hospital (1marks)   School or Library   1. What is the abscissa of Temple ? (1marks) | **4** |
| 22 | C:\Users\Mahesh\Downloads\IMG_20230815_214153 (1).jpg]  A pyramid is a structure whose outer surface are  triangular and converge to a single step at the top.  The base of the pyramid can be a triangle,  quadrilateral or any polygon.  Observe the above picture of pyramid and answer  the following questions   1. Are the triangles ABC and ACD congruent ?. Explain. 2. Mention the criteria used to prove above criteria. 3. Are the bases BC and CD equal ? Give reason. | **4** |

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