Oxford International School



Prelim Examination 2023-24

IX

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| Name |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**(In Block Letters)**

**Date:**

**Subject: - Math’s Time: 3 Hours T. Marks: 75**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Index No |  |  |  |  |

Instructions

Put your Name and Date at given place.

Read the paper thoroughly and answer those questions first for which you are sure about the answers.

Every question is with different instructions. Focus & Follow it.

Don’t need to write all the questions. You can put the Question no. put it correctly. Re check the paper/ answer script after completion.

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Question No | Section A | Section B | Section c | T.MARKS |
| Total .No | 15 | 30 | 30 | 75 |
| Marks  obtained |  |  |  |  |

Invigilated By \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Invigilator’s Sign \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Checked By \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Checker’s Sign \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Re Checked By \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Re Checker’s Sign \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Objectives (MCQS) 15 Marks

# Section “A”

1. **The additive inverse of = \_\_\_\_\_\_\_**
   1. **- b) c) d) 10i**
2. √−4 **x** √−4 **=**
   1. **4 b) 16 c) 2 d) none**
3. **π is a**  **number:**
   1. **Irrational b) rational c) 10 d) none**
4. **In triangle ABC, two sides are equal to 4cm it is called \_\_\_\_\_\_ triangle.** 
   1. **Isosceles triangle b) scalene triangle c) both a and b d) none**
5. **Base in the Natural logarithm is** 
   1. **10 b) e c) 22/7 d) none**
6. **(, )**
   1. **Mid-point formula b) distance formula c) ratio formula d) division formula**
7. **Two perpendicular lines meet at an angle of :** \_\_\_\_\_\_\_\_\_\_
   1. **450 b) 1800 c) 900 d) 1900**
8. **A polynomial consisting three terms is called** 
   1. **Monomial b) Trinomial c) Multinomial d) no**
9. https://www.cliffsnotes.com/rails/active_storage/blobs/redirect/eyJfcmFpbHMiOnsibWVzc2FnZSI6IkJBaHBBcm9lIiwiZXhwIjpudWxsLCJwdXIiOiJibG9iX2lkIn19--c902ce3f43264f6b6ef166d7f5b5761907b5a8a2/18707.jpg
   1. **Mid-point formula b) distance formula c) ratio formula d) division formula**

**10. A triangle having all the three sides congruent is called triangles. \_\_\_\_\_\_-**

* + - 1. **scalene b) congruent c) both a and b d) none**

**11. If there is no common factor is known in given expression then HCF is \_\_\_\_\_\_\_\_\_**

**a) 0 b) 1 c) 2 d) 3**

**12. The square root of 36a2-60ab+25b2 is \_\_\_\_\_\_\_\_**

**a) (6a+b) b) (6a-5b) c) (6a+6b) d) (a+b)**

**13. All the points that lie on y-axis are \_\_\_\_\_\_**

**a) Collinear b) non-collinear c) parallel d) perpendicular**

**15. How many acute angles are there in an acute angled triangle?**

**a) 1 b) 2 c) 3 d) none**

**15. The diagonal of \_\_\_\_\_\_ does not divide it into two congruent triangles.**

**a) Rectangle b) Parallelogram c) Square d) Trapezium**

# Subjective Marks 60

# Section “B”

Q: Attempt and six (06) questions. All question carry equal marks (30)

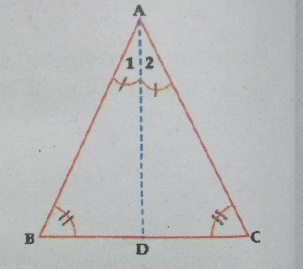
1. The Centre of a circle is (3, 4) and one of its end point of a diameter is (4,6) , find the point of other end.
2. Show that the points A (-1,0), B (1,0) C (0, ) are not collinear.
3. Solve the following equation.
4. Simplify: +
5. If -11, find x (rationalization method)
6. Factorize.
7. (x+1)(x+2)(x+3)(x+4)-48
8. Factorize the following.
9. a3b3 + 27b6
10. Factorize the following.
11. 125z3 -75z2y2 +15zy4 – y6
12. What should be added to 4x4 + 4x3 +17x2 +8x + 9 to make it perfect square?
13. Find the value of the following by using logarithm.
14. **Solve the following by completing the square method.**
    1. **(3x+2)(x+2) = 6-2(x+1)**

# Section “C”

**Attempt and Three (03) questions. All question carry equal marks. (30)**

1. **Solve the Following equation by using quadratic Formula.** 
   1. **4x2 – 10 = 0**
2. **If two angles of a triangle are congruent then the sides opposite to them are also congruent.**

**Given : In triangle ABC, we have** ∠b **≅** ∠c

**To prove. AB ≅ AC **

1. **Construct triangle PQR such that, mPQ = mQR = 4.6cm and m** ∠m**Q=35o**
2. **Solve the following simultaneous equations by graphical method.**
   1. **x + y = 4 ; 2x -1 = 5y**

**5. Theorem (A.S.A. A.S.A)**

**In any correspondence of two triangles, if one side and any to angles of one triangle are congruent to the correspondence side and angles of the other, the two triangles are congruent.**

**Given. In triangle ABC triangle PQR, then** **∠B ∠Q, mBC mQR, and ∠A ∠P**

**TO PROVE: triangle ABC triangle PQR**