GREENLAWNS HIGH SCHOOL

STD 8 **FINAL EXAMINATION 2026** **80M**

Time 2 hours **Mathematics**

Attempt all questions from Section A and Section B. All working including rough work must be clearly shown and done on the same page as the rest of the answer. Omission of essential steps will result in loss of marks.

SECTION A

QUESTION 1

Choose the correct answers to the questions from the given options (15)

i) If A = { a, b, c } and B = { b ,c, d } then A – B is
   a) { a }
   b) { b, c }
   c) {d}
   d) { b ,c, d }

ii) Consider the following statements
   1) A = { x : x < 1, x is an integer} is a finite set
   2) { 0} is a singleton set
   3) {∅ } is an empty set
   The correct statement is
   a) Statement 1
   b) Statement 2
   c) Statement 3
   d) None of the above

iii) P is the set containing all natural numbers
   Q is the set containing all whole numbers
   Then P ∩ Q is
   a) {1}
   b) {0}
   c) {0,1,2,3....}
   d) {1,2,3...}

iv) A can complete a work in 15 days and B can complete the same work in 60 days then the number of days taken by them to complete the work together is
   a) 15
   b) 1/15
   c) 12
   d) 1/12

v) If 7 oranges cost Rs 56 then the number of oranges that can be bought for Rs 184 is
   a) 22
   b) 23
   c) 24
   d) 25

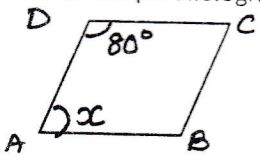
vi) The diagonals of a _____ bisect each other at right angles
   a) Parallelogram
   b) Rhombus
   c) Trapezium
   d) Rectangle

vii) In an isosceles trapezium the _____ sides are equal

a) Adjacent
b) Opposite
c) Parallel
d) Non Parallel

viii) In the figure drawn ABCD is a parallelogram, the value of x is

a) 100°
b) 90°
c) 80°
d) 70°



ix) In a square PQRS , $\angle P = 4x + 6$ then the value of x is

a) 20
b) 21
c) 22
d) 23

x) Y ={x : x is a factor of 28 } then n(Y) is

a) 6
b) 5
c) 4
d) 3

xi) $x^4 - 4y^2$ can be factorised as

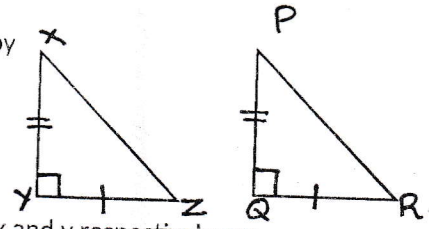
a) $(x^2 + 2y^2)\,(x^2 - 2y^2)$
b) $(x + 2y)\,(x - 2y)$
c) $(x^2 + 2y)(x^2 - 2y)$
d) None of the above

xii) $x^2 + 4x - 5$ when factorised is

a) (x+ 5) (x - 1)
b) (x- 5) (x - 1)
c) (x- 5) (x +1)
d) (x+ 5) (x +1)

xiii) In the figure drawn $\Delta XYZ \cong \Delta PQR$ by

a) SSS Test
b) SAS Test
c) AAS Test
d) RHS Test



xiv) If x + y = 6 and x – y = 2 then values of x and y respectively are

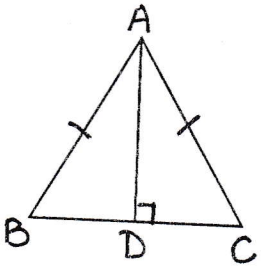
a) 2,4
b) 4,2
c) 6,3
d) 3,6

xv) X = $\{ x : -2 < x \leq 2, x \in Z \}$ in Roster form is

a) {-2,-1,0,1,2}
b) {-2,-1,0,1}
c) {-1,0,1}
d) {-1,0,1,2}

QUESTION 2

a) In the figure drawn prove that $\Delta ABD \cong \Delta ACD$.
If BD = 2x +3 and CD = 6x -5 find x and hence find CD (4)



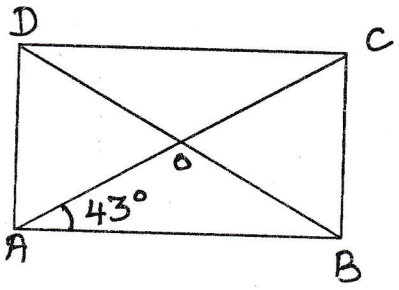
b) Factorise the following (4)

i) $6xy + 24y - 8x - 32$

ii) $p^3 - p$

c) In the figure drawn ABCD is a rectangle. If ∠OAB = 43° (4)

Find i) ∠OAD ii) ∠ACB iii) ∠AOB



QUESTION 3

a) Solve the following (4)

i) If the cost of 30 toys is Rs 768. What is the cost of 2 dozen such toys.

ii) If 20 people can complete a work in 7 days. Then calculate the number of people required to complete the same work in 28 days.

b) If $A = \{x : x < 7,\ x \in W\}$ (4)

$B = \{x : x \leq 9,\ x \in N\}$

Write A & B in the Roster form also find i) A- B ii) $A \cap B$

c) Solve the following simultaneous equations (5)

$22x + 15y = 281$

$15x + 22y = 274$

SECTION B

QUESTION 4

a) If Q= {1,4,9,16,25,36,49,64} (3)

i) Write set Q in the set builder form

ii) Find n(Q)

iii) Identify the type of set

b) Factorise (3)

i) $5xy - 10xz$

ii) $100a^2 - 144b^2$

c) Solve the following simultaneous equations (4)

$3x + 2y = 11$

$5x - 3y = 12$

QUESTION 5

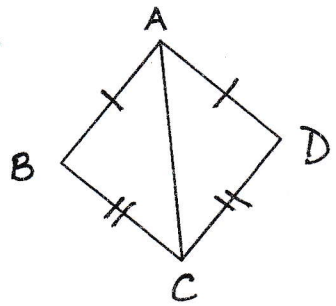
a) In a zoo 28 parrots consume 7420g of nuts in a day. If 8 parrots are sent away to another zoo, what quantity of nuts will be required in a day. (3)

b) In a square PQRS, PQ= 3x - 8 and QR = x + 6 find x and also find each side of the square (3)

c) In the figure drawn (4)

i) Prove $\Delta ABC \cong \Delta ADC$

ii) If $\angle ABC = y + 20°$ *and* $\angle ADC = 7y - 4°$ *find* x *and* $\angle ABC$



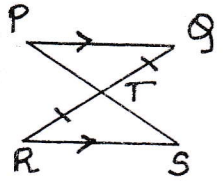
QUESTION 6

a) If A= {2,3,5,7,11,13,17,19,23}
B={ -5,-4,-3,-2,-1,0,1,2,3,4,5} (3)

i) Write A & B in the set builder form

ii) find A ∩ B

b) In the figure drawn PQ II RS & QT = RT



i) Prove $\Delta PQT \cong \Delta SRT$ (3)

ii) If PQ =7cm find RS

c) A and B can complete a piece of work in 20 and 15 days respectively. They work together for 3 days. Then B leaves the work and A works alone. Calculate the number of days A will take to complete the remaining work. (4)

QUESTION 7

a) Factorise $32x^3 - 2xy^2$

b) Solve the following simultaneous equations (3)

$2x + 5y = 18$ (3)

$2x + 3y = 2$

c) If x and y vary inversely find the values of a and b (show working) (4)

x	4	8	b
y	10	a	2