03.07.19   EVERWIN MATRIC.HR.SEC.SCHOOL   Time:45min.

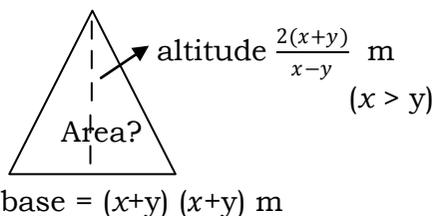Std: X (A-E)   TT MATHS   Marks: 25

I. Choose the correct answer: 4x1=4

1. A value that makes a rational expression undefined is called an _____.
   a) included value   b) excluded value
   c) integer   d) polynomial

2. The product of two rational expressions is _____ a rational expression.
   a) sometimes   b) always   c) never   d) none of these

3. $\sqrt{a^2x^2 + 2abx + b^2}$ = _____.
   a) a²x+b   b) ax+b²   c) ax+b   d) ab

4. The number of excluded values of $\frac{x^3+x^2-10x+8}{x^4+8x^2-9}$ is _____.
   a) 1   b) 2   c) 3   d) 4

II. Answer the following: 3x2=6

5. Reduce to lowest form $\frac{x^2-16}{x^2+8x+16}$

6. Find the excluded value of $\frac{x^2+6x+8}{x^2+x-2}$

7. Find the unknown expression in the following figure.

altitude $\frac{2(x+y)}{x-y}$ m
$(x > y)$

Area?

base = $(x+y)(x+y)$ m

III. Answer any three of the following: 3x5=15

8. Find the square root of $\frac{4x^2}{y^2} + \frac{20x}{y} + 13 - \frac{30y}{x} + \frac{9y^2}{x^2}$

9. Iniya bought 50kg of fruits consisting of apples and bananas. She paid twice as much per kg for the apple as she did for the banana. If Iniya bought ₹1800 worth of apples and ₹600 worth bananas, then how many kgs of each fruit did she buy?

10. Simplify $\frac{16x^2-2x-3}{3x^2-2x-1} \div \frac{8x^3+11x+3}{3x^2-11x-4}$

11. Find the square root of
$\left(2x^2 + \frac{17}{6}x + 1\right)\left(\frac{3}{2}x^2 + 4x + 2\right)\left(\frac{4}{3}x^2 + \frac{11}{3}x + 2\right)$

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Std: X (F-J)   TT SCIENCE   Marks: 25

I. Fill in the blanks: 5x1=5

1. _____ controls the amount of light entering into the pupil.

2. Ionisation energy is measured in _____.

3. When a neutral atom loses an electron, it becomes a positively charged ion called _____.

4. Kreb's cycle occurs in _____.

5. In bacteria, as a result of anaerobic respiration glucose is converted into _____.

II. Answer in short: 5x2=10

Part -A (any one)

6. Define power of a lens.

7. What is magnification?

Part - B (any three)

8. Define ionic radius.

9. Noble gases show no tendency to accept electron - why?

10. whether true or false (If false give the correct statement)
   i) Ionisation energy increases down the group.
   ii) Atomic radius in metal atoms is known as metallic radius.

11. Define covalent radius.

Part-C (any one)

12. What is respiratory quotient?

13. What is glycolysis?

III. Answer in detail: 2x5=10

Part - A (any one)

14. Write the sign conventions used for measuring various distances in the ray diagrams of spherical lenses?

15. Explain in detail about the parts of human eye.

Part -B (any one)

16. Write a note on the external apertures of leech.

17. Write a note on colouration and segmentation of Leech.

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Std: X (K-N)   TT SOCIAL   Marks: 25

I. Choose the correct answer: 5x1=5

1. _____ river is known as 'Sorrow of Bihar'
  a) Godavari   b) Kosi   c) Narmada   d) Damodar

2. The administrative capital of the Andaman and Nicobar
  islands _____.
  a) Kavaratti   b) Barren   c) Minicoy   d) Port Blair

3. _____ is a famous back water lake found in the western
  coastal plain.
  a) Chilka   b) Vembanad   c) Kolleru   d) Pulicat

4. _____ River is also called as Vridha Gange.
  a) Mahanadi   b) Godavari   c) Krishna   d) Kaveri

5. The highest peak in South India is _____.
  a) Ooty   b) Anaimudi   c) Kodaikanal   d) Jindhagadu

II. Match the following:

6. a) New alluvium   -   Bird Sanctuary
  b) Tsangpo   -   Himalaya Rivers
  c) Pitt Island   -   West flowing river
  d) Perennial   -   River Brahmaputra in Tibet
  e) Narmada   -   Khadhar

III. Give Reason :   2x2=4

1. Why Himalayas are called young fold mountains?
2. Why the river Gothavari is often referred to Vridha Ganga?

IV. Answer in brief: 3x2=6

1. Write a note on Lakshadweep island.
2. Write a short note on Deccan Plateau.
3. State the West and East flowing rivers of India.

V. Answer in detail: 1x5=5

1. Give a detailed account on the basin of the Ganga.