I. Choose the most appropriate synonym of the underlined
   words: 4x1=4

1. James mother shouted underlined intuitively.
   a) artificial   b) naturally   c) belatedly   d) thoughtfully

2. The indignant old man belonged to the house.
   a) calm   b) happy   c) annoyed   d) pleased

3. Nothing he said gruffly.
   a) bluntly   b) polite   c) kind   d) nice

4. He thinks you're deserter.
   a) used   b) pleased   c) unoccupied   d) cheerful

II. Choose the most appropriate antonym of the underlined
    words: 4x1=4

5. I could see the faint shine of plates.
   a) dim   b) dull   c) bright   d) mild

6. The cops were reluctant to leave.
   a) hesitant   b) agree   c) afraid   d) shy

7. The policemen began to ransack the floor.
   a) organized   b) ravaged   c) seized   d) scrutinized

8. The lady seems hysterical.
   a) indifferent   b) excited   c) crazy   d) frezied

III. Respond to the following as directed: 6x1=6

9. The plural form of the word 'eskimo'
   a) eskimoes   b) eskimoies   c) Eskimos

10. The plural form of 'Calf'
    a) calfs   b) calves   c) calfes

Choose the appropriate article to complete the sentence:

11. The bus arrived _____ hour late.
    a) a   b) an   c) the

12. _____ Bible is a holy book.
    a) A   b) The   c) An

13. Choose the appropriate prepositional phrase to complete
    the sentence:

 a) A pronoun is a word which is used _____ a noun.
    a) in front of   b) in support of   c) instead of

b) He worked hard _____ get first mark.
    a) in order to   b) inspite of   c) in view of

IV. Answer any three of the following in brief: 3x2=6

14. Who used the Zither and how?

15. What did the grandfather recollect at the end of the story?

16. What were the various sounds the brothers heard when
    they went downstairs?

17. What conclusions did grandfather jump to when he saw
    the cops?

V. Answer in a paragraph of 100 words: (5)

18. What is the theme of "The Night the ghost got in" by James
    Thurber?

I. Answer the following: (7)

1. Draw Δ PQR such that PQ=6.8cm, vertical angle is 50° and

   the base at D where PD = 5.2cm.

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

1. If $9x^4 + 12x^3 + 28x^2 + ax + b$ is a perfect square, find the

   values of a and b.

2. Simplify $\frac{12t^2 - 22t + 8}{3t} \div \frac{3t^2 + 2t - 8}{2t^2 + 4t}$

3. Find the square root of _____
   $(4x^2 - 9x + 2) (7x^2 - 13x - 2) (28x^2 - 3x - 1)$

4. i) Reduce $\frac{x-3}{x^2-9}$ to its lowest term

   ii) Find the excluded values of $\frac{1}{t^2 - 5t + 6}$

III. Choose the correct answer: 3x1=3

1. $\frac{x^3}{9y^3} \times \frac{27y}{x^5}$ = _____.

   a) $3x^2$y   b) x^2y   c) 3   d) $\frac{3}{x^2y}$

2. The excluded value of $\frac{x+10}{8x}$ is _____.

   a) 1   b) 0   c) 8   d) x

3. What is the value of x in $3\sqrt{x}$ =9?
   a) 9   b) 3   c) -9   d) -3

I. Answer the following: 5x1=5
1. The lines having frequencies higher than the incident
   frequency are called _____.
2. Neon shows zero electron affinity due to _____.
3. As the positive charge increases, the size of the cation_____.
4. _____ are colourless plastids.
5. Artificial photosynthesis is a method for producing renewable
   energy by the use of _____.
II. Answer in short: 5x2=10
                    Part - A (any one)
6. What is lens? Mention its types.
7. Draw a ray diagram to show the image formed by a convex
   lens when the object is placed between F and C.
                    Part - B (Any three)
8. What is covalent radius?
9. i) Across the period, ionic radii_____.
   ii) Down the group, Ionisation energy _____.
10. Define electron affinity.
11. Whether true (or) false (If false give the correct statement)
    i) The size of a cation is always smaller than its corresponding
       neutral atom.
    ii) Atomic radius, ionic radii decreases along the period
        from left to right and decreases down the group.
                    Part - C (any one)
12. Draw the structure of oxysomes and label the parts.
13. Write the full form of
    i) ATP   ii) NAD
III. Answer in detail: 2x5=10
                    Part - A (any one)
14. Explain in detail about Raman scattering?
15. Explain the rules for obtaining images formed by a convex
    lens with the help of ray diagram.
                    Part - B (any one)
16. Describe and name three stages of cellular respiration that
    aerobic organisms use to obtain energy from glucose.
17. Write a note on photosynthetic pigments.