

Dr.K.K.R GOWTHAM [E.M] HIGH SCHOOL :: GUDIVADA

Class : X

PRE-FINAL EXAMINATION

Time : 2.45 Min

Sub : Physical Science

Marks : 50 M

Instructions:

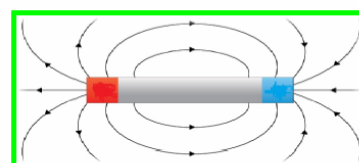
1. There are four sections and 33 questions in the paper.
2. Answers should be written in a given answer booklet.
3. There is internal choice in Section-IV.
4. Write all the questions visible & legibly.
5. 15 minutes are given for reading the question paper and 2.30 hours given for answering questions.

Section - I

I. Answer the following questions

12×½ =6 M

1. What do you observe when white light is passed through the prism ?
2. A Light ray passes from denser medium to rarer medium. If the angle of incidence is equal to critical angle , then what is the angle of refraction?
3. Mark the magnetic poles in the given figure by draw again.



4. Name the part of the eye that has real, inverted image of the object formed on it.
5. A teacher asked questions to a student he/she said $\frac{c}{v}$ a teacher. Guess the question asked by the teacher?
6. Convert 20°C into Kelvin scale?
7. Plaster of Paris should be stored in a moisture-proof container. Explain why.
8. Using the periodic table, predict the formula of compound formed between and element X of group 13 and another element Y of group 16.
9. Identify the element that has the lower ionization energy in each pair of the following and mark it with a symbol().
(i) Mg or Na (ii) Li or O (iii) Br or F (iv) K or Br
10. List three metals that are found in nature in uncombined form.
11. Name the simplest hydrocarbon.
12. What is the value of planck's constant ?

Section - II

II. Answer the following questions

8×1 =8 M

13. Write the lens formula and explain the terms in it?
14. The Doctor advised using 4D lens. What is its focal length ?
15. State the Lenz's Law?
16. Draw a neat labeled diagram for the circuit used in Ohm's Law experiment?
17. Name two elements that you would expect to have chemical properties similar to Mg. What is the basis for your choice?
18. Give some examples for corrosion.
19. A mixture of oxygen and ethyne is burnt for welding ; can you tell why a mixture of ethyne and air is not used?
20. Name the acid present in vinegar.

Section - III

III. Answer the following questions

8×2 =16 M

21. Write the reason behind the shining of Diamond and how do you appreciate it?
22. Seetha said to you that magnetic lines are open and they start at North pole to the end of South pole. What questions do you ask Seetha to correct her by saying field lines are closed?
23. Collect information about material required making simple electronic motor and writing the procedure in your own way?
24. How do you appreciate the specific heat capacity of water playing an important role in our daily life?
25. Write down the characteristics of the elements having atomic number 17.
 - 1) Electronic configuration
 - 2) Period number
 - 3) Group number
 - 4) Element family
 - 5) No. of valence electrons
 - 6) Valency
 - 7) Metal or non-metal
26. Why are there exemptions in writing the electronic configurations of Chromium and Copper?
27. Represent the molecule H₂O using Lewis notation.
28. How do metals occur in nature ? Give examples to any two types of minerals.

Section - IV

IV. Answer the following questions

5×4=20 M

29. What is meant by “water of crystallization” of a substance ? Describe an activity to show the water of crystallization.

(OR)

Newlands proposed the law of octaves. Mendeleeff suggested eight groups for elements in his table. How do you explain these observations in terms of modern periodic classification ?

30. i) What is a periodic property? How do the following properties change in a group and period? Explain.
 - a) Atomic radius
 - b) Ionization energy
 - c) Electron affinity
 - d) Electro negativity
- ii) Explain the ionization energy order in the following sets of elements:
 - a) Na, Al, Cl
 - b) Li, Be, B
 - c) C, N, O
 - d) F, Ne, Na
 - e) Be, Mg, Ca

(OR)

Where do we use hand picking and washing methods in our daily life ? Give examples. How do you correlate these examples with enrichment of ore ?

31. Sridhar has a Bi convex lens. Suggest him an experiment to find out the focal length of the lens by U – V method?

(OR)

After a rain shower Raju observed the rainbow in the sky. He wants to conduct an experiment to produce rainbow in the class room. Explain about the experiment to Raju?

32. Explain the procedure of finding the specific heat of a solid experiment by principles of methods of mixture?

(OR)

Explain Kirchhoff's laws with examples?

33. Draw the information of an image by image using the convex lens? Write nature of the image ?
 - a) object is placed at infinity.
 - b) object is placed between F and C

(OR)

Draw a neat diagram which shows acids contains H⁺ ions.

**** All the best ****