

**CLASS-10**

**GENERAL SCIENCE , Paper – I**

**GUESS-2016**

(Physical Sciences)

(English Version)

**Time: 3 Hours**

**Parts A and B**

**Maximum Marks : 50**

**Instructions :**

1. The Question paper contains 4 printed pages in Part-A and also in Part-B.
2. ½ hour is allotted for reading the question paper.
3. Answer the questions under Part-A on a separate answer booklet.
4. Write the answers to the questions under Part-B on the question paper itself and attach it to the answer booklet of Part-A.

**Time : 2 hours**

**PART-A**

**Max. Marks : 35**

**Section - I**

**5 x 2 = 10**

**Note :**

1. Answer any five questions choosing at least two from each group.
2. Each question carries two marks.

**Group -A**

1. Write the rules for sign convention.
2. When we sit at a camp fire, objects beyond the fire are seen swaying. Give the reason for it.
3. How do you appreciate the working of Ciliary muscles in the eye?
4. Give a few applications of Faraday's law of induction in daily life.

**Group -B**

5. What do you mean by corrosion? How can you prevent it?
6. On the basis of atomic numbers predict to which group and period the elements with atomic number 29 and 33 belongs to?
7. What is thermite process? Mention its applications in daily life?
8. Predict the reasons for low melting point for covalent compounds when compared with ionic compound.

**Section - II**

**4 x 1 = 4**

**Note :**

1. Answer any four questions from the following.
2. Each question carries one mark.
9. Why do we get dew on the surface of a cold soft drink bottle kept in open air?
10. Kiran saw a mirage on the road. He wants to take photograph. Is it possible?
11.  $2\Omega$ ,  $4\Omega$ ,  $8\Omega$  resistance are connected in parallel. Find the resultant resistance?
12. Plaster of Paris should be stored in moisture-proof container. Explain. Why?
13. Represent the molecule  $\text{NH}_3$  using Lewis notation.

14. Give the names of functional groups

(i) -CHO      (ii) -C=O.

**Section - III**

4 x 4 = 16

**Note :**

1. Answer any four questions choosing at least two from each group.
2. Each question carries four marks.

**Group -A**

15. How do you appreciate the role of spherical mirrors in daily life?

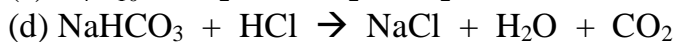
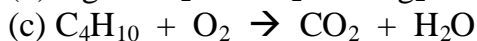
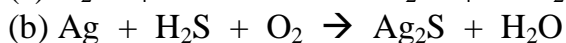
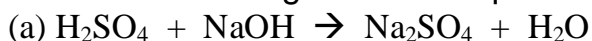
16. What is condensation? Which type of process it is? Explain the process of raining by using this concept?

17. Deduce an expression for the equivalent resistance of three resistors connected in series.

18. Explain two activities for the formation of artificial rainbow.

**Group -B**

19. Balance the following chemical equations?



20. Explain the significance of three Quantum numbers in predicting the positions of an electron in an atom.

21. 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.

22. Distinguish between esterification and saponification reactions of organic compounds.

**Section - IV**

1 x 5 = 5

**Note :**

1. Answer any one question from the following.
2. Each question carries five marks.

23. Draw of neat diagram of DC generator .

24. Draw a neat diagram showing acid solution in water conducts electricity.