

This Question Paper contains 4 Printed Pages.

**19E(A)**

**GENERAL SCIENCE, Paper - I**

*(English version)*

**Parts A and B**

**Time : 2½ Hours]**

**[Maximum Marks : 50**

**Instructions :**

1. Answer the questions under **Part-A** on a separate answer book.
  2. Write the answers to the questions under **Part-B** on the Question Paper itself and attach it to the answer book of **Part-A**.
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**Part - A**

**Time : 2 Hours**

**Marks : 35**

**SECTION - I**

**5×2=10**

**Note :**

1. Answer **ANY FIVE** questions, choosing at least **two** from each Group.
2. Each question carries **TWO** marks.

**GROUP - A**

1. State any two differences between Convex and Concave mirrors.
2. Write the Len's makers formula and explain the terms in it.
3. What do you mean by electric shock ? Explain how it take place ?
4. By observing steel vessels and different images in them, Ramu, a third class student asked some questions to his elder sister Santha. What may be those questions ?

**GROUP - B**

5. A mixture of Oxygen and Ethyne is burnt for welding. Can you tell why a mixture of Ethyne and air is not used ?
6. Which method do you suggest for extraction of high reactivity metals ?  
Why ?
7. Write any two uses and two properties of Covalent compounds.
8. Where do we use washing method in our daily life ? Give example. How do you correlate this example with enrichment of ore ?

**SECTION - II**

4×1=4

- Note :**
1. Answer **ANY FOUR** questions from the following.
  2. Each question carries **ONE** mark.

9. What is Humidity ?
10. Define Critical angle.
11. What is the reason for using Tungsten as a filament in electric bulb ?
12. What is a Chemical bond ?
13. Name the simplest Hydrocarbon.
14. Mention two methods, which produce very pure metals.

**SECTION - III**

4×4=16

**Note :**

1. Answer **ANY FOUR** questions, choosing atleast **two** from each Group.
2. Each question carries **FOUR** marks.

**GROUP - A**

15. Explain, why dogs pant during hot summer days using the concept of evaporation ?
16. How can you verify that a current carrying wire produces a magnetic field with the help of an experiment ?
17. Write about your favourite scientist / physicist.
18. A house has four tubelights, three fans and a television. Each tubelight draws 40 W. The fan draws 80 W and the television draws 100 W. On an average, all the tubelights are kept on for 5 hours, all fans for 12 hours and the television for 6 hours everyday. Find the cost of electric energy used in 30 days at the rate of Rs. 3.00 per KWH.

**GROUP - B**

19. Write the balanced chemical reaction for the following and identify the type of reaction in each case.
  - (A) Magnesium<sub>(s)</sub> + Iodine<sub>(g)</sub> → Magnesium iodide<sub>(s)</sub>
  - (B) Zinc<sub>(s)</sub> + Hydrochloric acid<sub>(aq)</sub> → Zinc chloride<sub>(aq)</sub> + Hydrogen<sub>(g)</sub>
20. Rainbow is an example for continuous spectrum. Explain.
21. What is meant by water of crystallisation of a substance ? Describe an activity to show the water of crystallisation.
22. Comment on the position of Hydrogen in Periodic table.

**SECTION - IV**

1×5=5

**Note :**

1. Answer **ANY ONE** of the following question.
  2. This question carries **FIVE** marks.
23. Draw a neat diagram of an A.C. generator.
24. Draw a neat diagram of Reverberatory furnace and label its parts.
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