

**Guess Paper – 2008**  
**Class – X**  
**Subject – Science**

1. Rahul has normal eye but the objects seems to him blurred. Give a possible reason for this.  
(1)
2. Anju bet with Preksha that spectrum can be observed even from a rectangular glass slab. Guess who will win also give reason for this.  
(1)
3. Draw a warning sign displayed on the bottle of concentrate sulphuric acid you used in lab during the test of hydrogen gas.  
(1)
4. Is dilute acid contains any hydroxyl ions. Explain with diagram.  
(1)
5. Draw a schematic diagram of a tree type domestic circuit.  
(1)
6. “Covalently bonded molecules are seen to have strong bonds within the molecules but intermolecular forces of attraction are small”. Comment on the statement.  
(1)
7. Why the filament of the bulb are thermally isolated. How can it be made so?  
(2)
8. You are given three material A, B and C. out of which one is magnetic substance but not magnet. Give a simple test to identify the magnet and also comment on it.  
(2)

9. Give manufacture reaction of an alcohol having molecular mass 32u.  
(2)
10. You are giving four compounds NaCl, CaCl<sub>2</sub>, NaHSO<sub>4</sub> and KCl respectively.  
Give methyl orange test on their aqueous solution.  
(2)
11. (a) Write structural formula and functional group of each:
- (i) CH<sub>2</sub>O      (ii) C<sub>3</sub>H<sub>6</sub>O      (iii) C<sub>5</sub>H<sub>10</sub>O<sub>2</sub>  
(iv) C<sub>2</sub>H<sub>6</sub>O      (3)
- (b) Observe the reaction of sodium carbonate and acetic acid and identify the oxidizing agent by giving reason.
12. Ankish placed a large shallow container on a high stool and put a stone in it.  
He moved away slowly from the bowl and to his surprise it disappeared and he stopped. He asked Apeksha to pour water gently into the container without disturbing the stone. Ankish kept looking the coin from his position.
- (i) Will the stone be visible to Ankish after pouring water?  
(ii) Give yes or no by giving suitable reason.  
(iii) In place of water if oil is poured in bowl then what happens.  
(3)
13. (a) Why non-metals do not displace hydrogen from dilute acid.  
(b) What possibilities are there if metal A reacts with salt solution of metal B.  
(c) What are true molecules? Is it correct to say NaCl a true molecule? Give two physical properties of NaCl also.  
(3)

14. (i) A concave mirror is placed on a scale marking 20.5 cm. The image is formed at zero distance from the focus. Find nature of image, focal length of the mirror and size of the image. Also draw ray diagram for it.

(ii) Give relation between extent of enlargement of image to the distance between focus and pole of a convex mirror.

(3)

15. (a) What are the two anomalies of Mendeleev's periodic table. How have these been removed by modern periodic table.

(b) How would you say that third period of periodic table have only eight elements?

(c) What are semi metals? Name the semi metals in periodic table.

**Or**

(a) Give two similarities which hydrogen exhibits with alkali metals and halogens respectively.

(b) Write formula of oxide and chloride of eka aluminium

(c) Give three mass defects in Mendeleev periodic table. (5)

16. (a) What is an electric motor?

(b) Where do we use the electric motors?

- (c) Draw a well labeled diagram of a simple electric motor (No description)
- (d) What is function of commutator in an electric motor?
- (e) What should be done to enhance the power of a motor for commercial purpose?

**Or**

- (a) What do you mean by term magnetic effect of current.
- (b) Where does magnetic field uniform in a solenoid. Draw diagram to show this.
- (c) Name four devices that use current carrying conductors and magnetic field.
- (d) Name the scientist who use moving magnet to generate electric current. What does this current called?
- (e) When does the current generate by this phenomena found to be highest.  
(5)

**Section B**

- 17. Expand UNEP and give its role. (1)
- 18. Give one dramatic change in your appearance when you approached 10- 12 yrs of age. Why it happens.  
(1)
- 19. How secretion of hormone from endocrine gland regulate?  
(1)
- 20. Write any two factors that regulate the amount of urine. Why excretion known as vital function.  
(2)

21. Why thermal power plants are set up near coal and oil fields?  
(2)
22. (a) What are platelets?  
  
(b) What is important function of platelets in our body?  
(2)
23. (a) On which river Tehri Dam is constructed?  
(b) Write a short note on Chipko movement. (2)
24. (a) Name the following- one STD caused by bacterial infections.  
(b) Which of the following is not a unisexual flower? Hibiscus, Watermelon, papaya.  
(2)
25. (a) Give four-step food chain in pond.  
(b) What is the role of decomposers in the ecosystem?  
(c) What is biological magnification? (3)
26. (a) A tall pea plant crossed with a dwarf pea plant producing 40 with tall. On selfing these plants produced 470 tall plants and 162 dwarfs.  
What genetic mechanism account for these results.  
Write the phenotypic ratio of offspring in  $F_2$  generation.  
(b) The genotype of blue-eyed father is (Ee) and black-eyed mother is (ee)  
  
Black eye is recessive to blue eye.  
  
Trace the possibility of their offsprings and their genotypes.  
(3)

27. (a) What is synapse. Draw diagram of neuron.  
(b) Describe mechanism of reflex action with diagram.

**Or**

- (a) Draw a labeled diagram of human brain.  
(b) Name the part of the human brain controlling involuntary actions like blood pressure, salivation and vomiting etc.  
(c) Write function of pons, medulla, cerebellum and cerebrum.  
(5)