

GUESS PAPER - 2008
Class - X
SUBJECT - SCIENCE

Section A

1. Why pH scale limited to a fixed range.
(1)
2. Give two safety measures, which will you, take while decomposition reaction of ferrous sulphate?
(1)
3. Why does open time of key is more than its closed time.
(1)
4. Give principle on which electric fuse works.
(1)
5. The electrical conductivity of few materials is given below in ohmmeter. Which of these materials can be used for making filament of electric bulb?

A	49×10^{-6}
B	44×10^{-6}
C	1.84×10^{-6}
D	5.20×10^{-8}
E	1.60×10^{-8}
F	6.84×10^{-8}

(1)

6. Is it possible that an optical denser medium may not possess greater mass density? Give an example to show this. (1)
7. What do you mean by family of salts. Name a sodium salt used to softening hard water.
8. An electric bulb is marked 200 W, 220V. What information do marking convey? How long will it take for the bulb to consume 4 units? (2)
9. A bird sitting on 11000V wire is not hurt while a person touching 220 V wires affected very much even die. Why so? (2)
10. Give near and far point of myopic and hypermetropic eye. (2)
11. A road tanker carrying an acid was involved in an accident and its content spilled on road. At the side of the road, iron drains covers began melting and fizzing as the acid ran over them. A specialist was called to see if the acid actually leaked into the river.
 - (i) The word 'melting' is incorrect used in the report. Suggest a better name that should have been used for this purpose.
 - (ii) Explain why the drain covers began fizzing as the acid ran over them. (3)
12. Give formulae of oxides and hydrides of group III, VI, VII, VIII describe by Mendeleev. (3)
13. Imagine that you are sitting in a room with your face toward the wall. An electron beam, moving vertically toward your head, is deflected by strong magnetic field to your left side. What is the direction of magnetic field? (3)

14. (a) Draw a flow chart to show steps involved in extraction of metals from ores.
(b) What are allotropes? Name two allotrope of an element 'X' having six neutrons in its nucleus and six electrons revolving around its nucleus. (3)
15. (a) What is the reactive site in ethene?
(b) Three hydrocarbons X, Y, Z have melting points -183°C , -138°C , and -95°C respectively. Which has maximum number of carbon in molecules.
© What is absolute alcohol.
(d) Give structure of simplest ketone, aldehyde, carboxylic acid, and alcohol.
(e) An alcohol having molecular mass 56. Give its structure.
- Or
- (a) What happens when allotrope of carbon are combusted.
(b) Give acidified dehydration reaction of an alcohol having molecular mass 46.
(c) Give alkaline potassium permanganate test of alcohol and carboxylic acid.
(d) Why does micelle formation take place when soap is added to water?
(e) Give next three homologue of CH_3COCH_3 .
- (5)
16. (a) An object is placed 10 away from focus toward Centre of curvature. Find image distance if focal length is 10 cm.

- (b) Define linear magnification of mirror.
- (c) Give mathematical relationship between magnification and focal length of the lens.
- (d) From where does normal always pass in concave mirror and concave lens?
- (e) If a clock have marks instead of words and it is placed in front of plane mirror. The time seems in mirror is 10:30 then what will be the actual time.

Or

- (a) What is cataract?
- (b) What do you mean by wavering.
- (c) Give relationship between wavelength of blue and red light.
- (d) Why clouds seems white.
- (e) What is Tyndall effect?

(5)

Section B

17. What is the normal room temperature? If water at 348 K is left in a room temperature some heat is lost. Is there any way of collecting the heat lost to environment and making the water hot once it has cooled down. (1)

18. What is the advantage of reproduction through pores? (1)

19. Define gene. Give its location. (1)

20. Why nitrogen is essential for plants. In which inorganic form plants take it up. (1)

(2)

21. Write one feature that is common to each of the following pairs of term/organs.

- (a) Glycogen and starch.
- (b) Chlorophyll and haemoglobin.
- (c) Gills and lungs
- (d) Arteries and veins.

(2)

22. Name one water harvesting system in following states: (i) Rajasthan, (ii) Maharashtra, (iii) Tamil Nadu (iv) Kandi belt of Jammu and Kashmir. (2)

23. Give location of pituitary gland, testes, adrenal gland, and thymus gland in our body. (2)

(2)

24. Explain how the temperature of earth is maintained. Describe the mechanism in brief. (2)

(2)

25. (a) Draw a pie chart showing the requirement of coal, wind, nuclear, hydro, petroleum and natural in India.

- (b) Draw a simple model to demonstrate the process of thermoelectric production. (3)

26. What is the function of receptor in our body? Think a situation where receptors do not work properly. What problems are likely to arise? (3)
(3)

27. (i) What is the scientific name of the plant on which Mendel performed experiments.

(ii) Who gave the theory of natural selection?

(iii) What are species?

(iv) What for did Mendel use the term factors and what are these factors called now?

(v) Name an organism in which sex is not determined genetically.

Or

(i) What do you mean by evolution.

(ii) Give two factors that lead to evolution.

(iii) Describe any three methods to trace evolutionary relation between different organisms.