

SCIENCE GUESS PAPER 1
TENTH CLASS

SECTION A

1. Give the equation of the nuclear fission reaction of U 235. 1
2. What is the instantaneous rate of reaction? 1
3. What is amalgam? why it is made? 1
4. Why do the drivers use the convex mirror for the rear view? 1
5. Name the common name and the IUPAC name of the first member of Aldehydes. 1
6. Explain the role of the retina, ciliary muscles and the Iris in the eye. 2
7. What is the role of the moderator and the controlling rods? 2
8. What is the cause of refraction? How does it differ from reflection? 2
9. What are the endothermic and the exothermic reactions? Give one example of each. 2
10. Find the equivalent resistance if two resistances of 2 ohms each are connected in parallel to one ohm resistance in series across the battery of the potential difference 6 volts? 2
11. a) name the white powder used in the extraction of iron from Haematite.
b) What is the use of this powder?
c) Give the equation of the above reaction. 3
- or
- a) What are the uses of the carbon electrodes in the extraction of aluminium?
b) Why the anode is used up?
c) What is the role of Cryolite here?
12. Explain the cleansing action of soap with a suitable diagram. 3
13. Give the equations for the following reactions 3
- a) Preparation of Polyester.
b) Esterification
c) Preparation of Acetone.
14. a) explain with the diagram the Faraday's rotation experiment 3
- b) state the right hand rule.
- 15) a) What are the communication satellites? 3
- b) What are the uses of remote sensing
c) Explain the big bang theory.
- 16) a) Derive the relation for the equivalent resistance when the number of the resistances are connected in parallel.
b) What is a fuse?
c) Name the number of the electrons in one charge. 3
17. a) Derive the formula for the equilibrium constant. 3

b) explain the effect of the temperature and the concentration on the rate of reaction with the graphs.

18. Explain the construction, working and the principle of the DC generator. 5

or

Explain the liquid drop model of the nuclear reaction with the diagrams.

19) a) What are the solar cookers? 5

b) What are the solar concentrations?

c) Explain the construction and the working of the solar water heater.

20. Explain the construction and the working with the ray diagram the compound microscope. 5

or

a) What is mirage? Explain with the diagram.

b) Explain Looming with the diagram.

Section B

21. What is the role of stomach in digestion? 1

22. Why the testis are called the exocrine and the endocrine glands both? 1

23. What is the role of Gizzard in grasshopper? 1

24. Explain the light reaction of photosynthesis. 2

25. Explain with the diagram how the sexual reproduction takes place? 2

26. a) What is STD? 3

b) What is vasectomy

c) differentiate between menarche and menopause.

27. Draw the diagram of the chloroplast and give the places where the light and the dark reaction takes place 3

28. Give two effects of the air and the soil pollution each. 3

29. Draw the well labelled diagram of a nephron and state the formation of the urine. 3

or

Name the types of the endocrine glands and their secretions with the functions.

30. a) with the help of diagrams explain the types of the chromosomes. 5

b) Draw the diagram of the double helical structure of the chromosomes and explain the parts.

or

a) what is blood?

b) name the components of blood.

c) Explain the clotting of blood

d) What is plasma?

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