

SCIENCE GUESS PAPER 1
TENTH CLASS

SECTION A

1. Give the equation of the nuclear fusion reaction of deuterium. 1
2. What is the average rate of reaction? 1
3. What is fiber glass? Why it is made? 1
4. What is astigmatism? 1
5. Name the common name and the IUPAC name of the first member of ketones. 1
6. Explain what is the accommodation of eye. How it is carried out. 2
7. What is the role of the coolant and turbine in the nuclear reactor? 2
8. What is the cause of total internal reflection? Name the conditions? 2
9. What are the acids and the bases? Name any two strong acids and bases and two weak acids and bases. 2
10. Find the equivalent resistance if two resistances of 4 ohms each are connected in parallel to 4 ohm resistance in series across the battery of the potential difference 12 volts? 2
11. a) Name the impurities in the pig iron which are removed to form steel. 2
 b) Give the equations to remove them. 3
- or
- a) Why the aqueous salt of sodium chloride not used in the electrolysis of sodium??
- b) What happens when a copper rod is put in the zinc sulphate solution? Why?
- c) Give one example each of the reversible and the irreversible reactions.
12. Explain the preparation of acetone with equation. 3
13. Give the equations for the following reactions 3
 - a) Oxidation of ethanol.
 - b) Esterification
 - c) Preparation of nylon.
- 14.a) explain with the diagram the working of motor 3
 b) state the left hand rule
15. a) What are the polar satellites? 3
 b) What is ISRO? Explain its objectives
- c) Explain the steady state theory.
- 16) a) Derive the relation for the equivalent resistance when the number of the resistances are connected in series.
- b) Which metal is used in the fuse and why?
- c) Name the scientist who said that universe is expanding. 3
17. a) Derive the formula for the ionic constant of water. 3
 b) Explain the effect of the state of the reactants and the catalyst on the rate of chemical reaction.

18. Explain the Rutherford experiment of nuclear reaction. 5
 or
 Explain the cause of the energy released in the nuclear reaction of uranium.
19. a) explain the generation of the electricity in the hydro power station. 5
 b) What is bio gas?
 c) Explain the construction and the working of the bio gas plant.
20. Explain the construction and the working with the ray diagram the telescope. 5

Section B

21. What is the role of pancreas in digestion? 1
22. Why the ovaries are called the exocrine and the endocrine glands both? 1
23. What is the role of crop in grasshopper? 1
24. Explain the dark reaction of photosynthesis. 2
25. Explain with the diagram how the sexual reproduction takes place in the flowers? 2
26. a) What is gestation? 3
 b) What is mutation
27. Draw the diagram of the alimentary canal in the insects. 3
28. Give two effects of the water and the soil pollution each. 3
29. Draw the well labeled diagram of a neuron and state how the impulses are transferred in the body. 3
30. a) with the help of diagrams explain the double circulation. 5
 b) Draw the diagram of the human brain and explain the functions of each.
 or
- a) What is RuDP?
 b) Expand ADH and NADP.
 c) Explain osmoregulation
 d) What is layering?