

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.
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.

- 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?