

MODEL QUESTION PAPER-

SUBJECT: SCIENCE

Max.Marks:80

I. Choose the correct answer.

8x1=8

1. The most suitable material for making the core of an electromagnet is
a) Brass b) Soft iron c) Aluminium d) Steel
2. An example of analogous organ is
a) our arm and a dog's foreleg b) our teeth and an elephant tusks
c) Potato and runners of grass d) Birds wing and insects wing
3. If one of the metals is mercury, then the alloy is known as
a) Blend b) Amalgam c) Soldering metal d) Brass
4. Male parts of the flower
a) Ovary b) pollen tube c) Petals d) Pollen grains
5. Which of the following is growth inhibitor of plant?
a) Auxin b) Gibberlin c) cytokinen d) Abs sic acid
6. Which compound undergoes chemical decomposition when exposed to sunlight
a) AgCl b) MgCl₂ c) CaCl₂ d) NaCl
7. Triad rule is proposed by
a) Newland b) Dobereiner c) Mendeleev d) Mosle
8. The defect of vision which cannot be corrected by using spectacles is
a) Cataract b) Myopia c) Hypermetropia d) Presbyopia

II. 8x1=8

9. How is a voltmeter connected in the circuit to measure the potential difference between two points?
10. In which place the Chipko movement took place for the first time?
11. Before burning magnesium wire, it should be cleaned. Why?
12. Why do we apply paint on iron?
13. The sky looks black for an astronaut in space. Why?
14. List any two uses of baking soda.
15. Name the products obtained during anaerobic respiration?
16. The refractive index of diamond is 2.42. What is the meaning of this sentence?

III. 8x2=16

17. When an object is placed 20cm from a concave mirror, a real image magnified three times is formed.
a) find the image distance
b) focal length
18. a) Who proposed Modern Periodic law?
b) What was the basis of arranging the elements in it?

Or

How does metallic character and ionization energy of an element depend on the size of an atom?

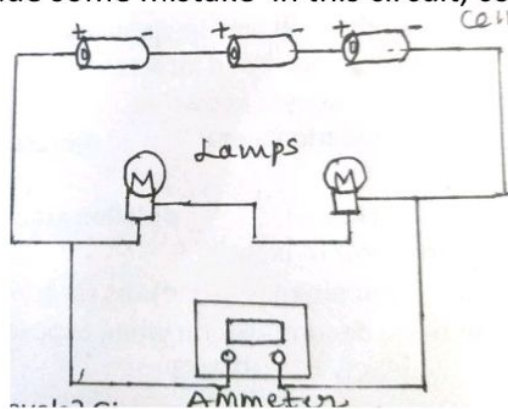
19. What is thermite reaction? Write its chemical equation.
20. A substance X used as an antacid reacts with hydrochloric acid to produce a gas Y which is used in extinguishing fire.
a) Name the substance X and gas Y
b) Write a balanced equation of the reaction between X and hydrochloric acid.

21. Differentiate 'overloading' and 'short circuiting'.

Or

Differentiate 'dynamo' and 'motor'.

22. A student made an electric circuit shown here to measure the current through two lamps. But he made some mistake in this circuit, correct it.



23. What trophic levels? Give an example of a food chain.

24. Can the wing of a butterfly and the wing of a bat be considered homologous organs?

Why or why not?

IV.

9x3=27

25. Draw a labelled diagram of action of steam on a metal.

26. Give reasons.

a) Rain water conducts electricity but distilled water does not.

b) A tarnished copper vessel regains its shine when rubbed with lemon.

Or

Identify the acid and the base whose combination forms the common salt that you use in your food.

i) Write its formula and chemical name of this salt.

ii) Name the source from where it is obtained.

27. Anil is a car driver. One day he complained that he had difficulty in driving car because he could not see the distant traffic. He visited an eye hospital. The eye specialist checked and suggested to wear spectacles. Now he is able to see the distant vehicles, traffic.

a) Name the eye defect Anil is suffering from.

b) What type of lenses do you think have been recommended for his spectacles.

c) Do you think Anil has to wear these spectacles all the time say reading and reading.

28. Draw a neat labelled diagram of AC generator.

29. A blue colour flower plant denoted by BB is crossbred with a white colour flower plant denoted by WW.

a) State the colour of flower we would expect in their F_1 progeny.

b) Write the percentage of plants bearing white flower in F_2 generation when the flowers of F_1 plants were selfed.

30. a) Write two environmental consequences of the increasing demand for energy.

b) Which of the two is cleaner fuel: hydrogen or CNG.

Or

a) Write two limits of ocean(wave) energy.

b) Write two uses of nuclear energy.

31. What is regeneration and budding? Give example for each.

Or

What is pollination? How does it occur in plants? How does pollination lead to fertilization?

32. Reusing is better than recycling. Justify your answer by giving three reasons.

Or

List any three advantages associated with water harvesting at community level.

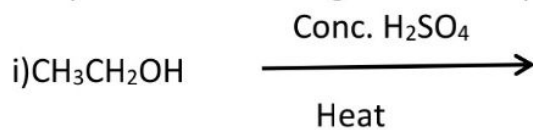
33.a) Why does the food get spoiled? How can it be prevented?

b) How are potato chips prevented from getting spoiled in packets for so many days?

V.

4x4=16

34.a) Complete the following chemical equations.



b) Write the molecular formula and dot structure of ethane

Or

a) Write the molecular and structural formula for the following hydrocarbons.

i) Carboxylic acid

ii) Propane

b) Explain the process of cleaning action of soap.

35. Define the following with respect to spherical mirror.

a) Optical centre b) Centre of curvature

c) Principal axis d) focal length

36.a) A person is taking insulin injection every day.

i) Name the disease he is suffering from.

ii) How does healthy life style help this patient to control this disease.

b) On touching a hot plate you suddenly withdraw your hand. Which category of neurons became active first and which one next?

37.a) Distinguish between resistance and resistivity?

b) What would be the effect on the resistance of a metal wire of

i) increasing its length

ii) increasing its diameter.

VI.

1x5=5

38.a) Draw the diagram of cross-section of human heart and label the following parts.

i) Right Ventricle ii) Aorta iii) Left atrium iv) Pulmonary arteries

b) Arteries have thick elastic walls. Give reason.