

Roll No. 1

Total No. of Questions : 40]

[Total No. of Printed Pages : 10

10th AROKD(W/Z) JKLUT-2026

2005-B

SCIENCE

Time : 3 Hours]

[Maximum Marks : 80

SECTION-A

Note:- Question No.'s 1 to 18 are Very Short Answer Type Questions of 1 mark each.

1. The refractive Index of Diamond is : 1
- (a) 1.77 (b) 1.65
- (c) 2.42 (d) 2.13
2. The blue colour of sky is due to : 1
- (a) Refraction (b) Dispersion
- (c) Diffraction (d) Scattering

3. The Human Eye forms the image of an object at its : 1
- (a) Cornea (b) Iris
- (c) Pupil (d) Retina
4. The most suitable material for making the core of an electromagnet is: 1
- (a) Steel (b) Iron
- (c) Soft Iron (d) Aluminium
5. A magnet attracts : 1
- (a) Plastic (b) Aluminium
- (c) Iron and steel (d) Any Metal
6. The general formula of Alkynes is : 1
- (a) $C_nH_{2n} + 2$ (b) C_nH_{2n}
- (c) $C_nH_{2n} - 2$ (d) None of these

Metals can be drawn into thin wires. This property is called : 1

- (a) Metallic Luster (b) Malleability
(c) Ductility (d) Conductivity

Which of the following Metals can be obtained from Haematite Ore? 1

- (a) Copper (b) Iron
(c) Zinc (d) Sodium

Sting of Nettle plant contains : 1

- (a) Methanoic Acid (b) Oxalic Acid
(c) Citric Acid (d) Carbonic Acid

1. A solution reacts with crushed egg-shells to give a gas that turns lime-water milky. The solution contains :

- (a) NaCl (b) HCl
(c) LiCl (d) KCl

11. The kidneys in Human beings are a part of the system for :
- (a) Nutrition (b) Respiration
(c) Excretion (d) Transpiration
12. Which of the following is plant hormone?
- (a) Insulin (b) Thyroxin
(c) Estrogen (d) Cytokinin
13. The Science of heredity is known as :
- (a) Biology (b) Embryology
(c) Genetics (d) Biochemistry
14. Green Plants are :
- (a) Autotrophs (b) Heterotrophs
(c) Parasites (d) Saprophytes

15. Which of the following helps in the recycling of materials in an ecosystem?

1

- (a) Autotrophs (b) Saprotrophs
(c) Omnivores (d) Carnivores

Note:- From Q No's 16 to 18 two statements (Assertion-A and Reason-R) are given. Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below :

Codes :

- (a) A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

6. Assertion(A) : If a graph is plotted between the current flowing and potential difference, the graph is straight line passing through the origin. 1

Reason (R) : The current is directly proportional to the potential difference.

17. Assertion (A): In a reaction of Copper with Oxygen, Copper serves as a reducing agent. 1

Reason (R): The substance which gains Oxygen in a chemical reaction acts as a reducing agent.

18. Assertion (A): Gametogenesis is the process of formation of gametes. 1

Reason (R): Gametes are formed through mitosis in the reproductive Organs.

SECTION-B

Note :- There will be Ten Questions in this section (Q.No's 19 to 28) each carrying 2 marks.

19. What is power of a Lens? Define one Diopetre of Power of Lens. 2

20. Calculate the amount of charge passed through any area of cross section of the conductor when a current of 10 A flows through a conductor for two minutes. 2

21. Distinguish between the terms 'Over loading' and 'Short circuiting' as used in domestic circuits. 2

22. Why does the colour of copper sulphate solution change when an iron nail is dipped in it? 2
23. Give any two differences between soaps and detergents. 2
24. Explain the meaning of Malleable and Ductile. 2
25. What are Autotrophs and Heterotrophs? 2
26. Write down two differences between Reflex Action and Walking. 2
27. Draw a neat labelled diagram of a flower showing its various parts. 2
28. Why are the traits acquired during the lifetime of an individual not inherited? 2

SECTION-C

Note :- In this section from Q.No's 29 to 37, there will be Nine Questions with internal choice carrying 3 marks each.

29. What is power of Accommodation of the Eye? What is the Far point and Near point of Human Eye with normal vision? 3

OR

Define Myopia. Give its causes and how is it corrected?

30. An electric motor takes 5A current from a 220 volt line, determine the power and energy consumed in 2 hours.

OR

An electric Iron of resistance 20 ohm Ω takes a current of 5A. Calculate the heat developed in 30 seconds.

31. List the properties of Magnetic lines of Force.

OR

What precautions should be taken to avoid the overloading domestic electric circuits?

32. What is the difference between Displacement and Double displacement reactions? Give examples.

OR

What is Corrosion? How is it prevented?

33. Define the terms :

(i) Mineral

(ii) Ore

(iii) Gangue

OR

Differentiate between Metals and Non-Metals on the basis of their physical properties.

34. What is an Alkali? Write down two properties of Alkalies. 3

OR

Give three important properties of Acids.

35. Why is the use of Iodised salt advisable? 3

OR

How does Chemical Co-ordination occur in plants?

36. How does Binary Fission differ from Multiple Fission? 3

OR

How is the process of Pollination different from Fertilisation?

37. What is Tropic Level? Give an example of food chain and state the different tropic levels in it. 3

OR

What will happen if we kill all the organisms in one tropic level?

Turn Over

SECTION-D

Note :- In this section from Q.No's 38 to 40, there will be Three Long Answer Type Questions each carrying 5 marks.

38. What is Refraction of Light? Explain the laws of Refraction of light with the help of Labelled diagram.

Or

An object 5 cm in length is held 25 cm away from a convex lens of focal length 10 cm. Draw a ray diagram and find the position size and nature of the Image formed.

39. (a) What is a Homologous Series? Explain with an example.

- (b) State two characteristics of a Homologous series.

OR

Explain the mechanism of the cleansing action of Soaps.

40. What are the components of Transport system in plants? What are the functions of these components?

OR

Describe the structure of Nephron with functioning.
