

Roll No. 1001008504

Total No. of Questions : 40]

[Total No. of Printed Pages : 10

10th AROKD(W/Z) JKLUT-2026

2005-C

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

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Turn Over

3. The Human Eye forms the image of an object at its :

(a) Cornea

(b) Iris

(c) Pupil

(d) Retina

4. A rectangular coil of copper wires is rotated in a magnetic field. The direction of the induced current changes once in each :

(a) Two revolutions

(b) One revolution

(c) Half revolution

(d) One-fourth revolution

5. Which of the following is not attracted by a magnet ?

(a) Steel

(b) Cobalt

(c) Brass

(d) Nickel

6. The general formula of Alkynes is :

(a) $C_n H_{2n+2}$

$C_n H_{2n}$

(c) $C_n H_{2n-2}$

(d) None of these

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

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

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

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

9. Plaster of Paris is prepared from :

- (a) Slaked Lime (b) Gypsum
 (c) Baking Powder (d) Bleaching Powder

10. A solution having pH 9 is :

- (a) Acidic (b) Alkaline
 (c) Neutral (d) None of these

11. The kidneys in Human being 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. In Peas a pure tall (TT) plant is crossed with a pure short plant (tt). The ratio of pure tall plants to pure short plants in F_2 generation is :

(a) 1 : 3

(b) 3 : 1

(c) 1 : 1

(d) 2 : 1

14. Ozone Blanket is present in which layer of Atmosphere :

(a) Mesosphere

(b) Troposphere

(c) Stratosphere

(d) Thermosphere

15. The use of which chemical has endangered the Ozone layer? 1

- (a) Pesticides (b) CFCs
(c) Insecticides (d) None of these

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. **a1**
(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.

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.

ansd end to 10

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.

9. What is power of Lens? Define one Diopetre of power of Lens. 2

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

Why does a compass needle get deflected when brought near a bar magnet? 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. State importance of metal reactivity series. 2
25. What are Autotrophs and Heterotrophs? 2
26. Write down two differences between Reflex action and Walking. 2
27. Why is DNA copying an essential part of the process of Reproduction? 2
28. What factors could lead to the rise of new species? 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 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. What are Magnetic field lines? How does the strength of Magnetic field inside a solenoid vary?

OR

What is the function of Earth Wire? Why is it necessary to earth metallic appliances?

32. What is the difference between Oxidation and Reduction reactions? Give examples.

OR

Explain the terms Corrosion and Rancidity with one example of each.

33. Define the terms :

(i) Mineral

in the crust of earth.

(ii)

Ore

from which metal can be extracted.

(iii) Gangue

unwanted material.

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?

7. Why is damage to the Ozone Layer a cause of concern? What steps are being taken to limit this damage? 3

OR

Mention three ways to help in reducing the problems of waste disposal.

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. 5

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. 5
 (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? 5

OR

Describe the structure of Nephron with functioning.
