

Class : 9Register
Number**SECOND MID TERM TEST - 2024****SCIENCE**

Time Allowed : 1.30 Hours]

[Max. Marks : 50

PART - I**I. Choose the correct answer.**

7x1=7

- Electric field lines ----- from positive charge and ----- in negative charge.
 - start ; start
 - start ; end
 - end ; start
 - end ; end
- Electroplating is an example for
 - Heating effect
 - Chemical effect
 - Flowing effect
 - Magnetic effect
- Number of valence Electron in Carbon is
 - 2
 - 4
 - 3
 - 5
- Compounds have high Melting and Boiling Points
 - Covalent
 - Coordinate
 - Ionic
- Stomach of human beings mainly digests -----
 - Carbohydrates
 - Proteins
 - Fat
 - Sucrose
- The Structural and Functional unit of the Kidney is -----
 - Villi
 - Liver
 - Nephron
 - Ureter
- The Nutrient required in trace amounts to accomplish various body functions is -----
 - Carbohydrate
 - Protein
 - Vitamin
 - Fat

PART - II**II. Answer in one or two sentences. (Any five) (Q.No. 10 is compulsory)**

5x2=10

- What are Electric lines of Force?
- State Ohm's Law.
- NaCl is insoluble in Carbon tetrachloride but Soluble in Water. Give reason.
- Identify the following reactions as Oxidation or reduction.
 - $\text{Na} \longrightarrow \text{Na}^+ + \text{e}^-$
 - $\text{Fe}^{3+} + 2\text{e}^- \longrightarrow \text{Fe}^+$
- Match the following.

Organ	Elimination
Skin	(a) Urine
Lungs	(b) Sweat
Intestine	(c) Carbon dioxide
Kidneys	(d) Undigested food

CH / J / 9 / Sci / 1

13. Why Salt is used as Preservative in Food?

14. Name any two Naturally Occurring Toxic substances in Food.

PART - III

III. Answer in Brief (Any Three) Q.No.16 is compulsory.

3x4=12

15. (a) Define Electric Field.

(b) Name any two appliances which work under the Principle of heating effect of Current.

16. Calculate the amount of Charge that would flow in 2 hours through an element of an electric bulb drawing a current of 2.5A

17. Find the oxidation Number of the Elements in the following compounds.

a. C in CO_2

b. N in HNO_3

18. (i) Why do we sweat?

(ii) Mention any two Vital Functions of Human Kidney?

19. What are the Effects of Consuming Adulterated Food?

PART - IV

IV. Answer in Detail. (Any Three):

3x7=21

20. a) i) List the Safety Features While Handling Electricity.

ii) A Bird Sitting on High Power Electric line is Still Safe. How?

(OR)

b) i) Define Electric Current and give its Unit.

ii) How are the Home Appliances Connected in General, in Series or Parallel. Give Reasons.

21. a) i) Why are Noble gases inert in Nature?

ii) Discuss in brief about the Properties of Coordinate Covalent Compounds.

(OR)

b) i) An Atom X with Atomic Number 20 Combines with Atom Y with Atomic Number 8. Draw the Dot Structure for the Formation of the Molecule XY.

ii) List Down the Differences between Ionic and Covalent Compounds.

22. a) i) Describe the Alimentary Canal of Man.

(OR)

i) Explain the Role of Food Control Agencies in India.

ii) Write any one Function of the following Minerals.

a) Calcium

b) Sodium

c) Iron

CH/J/9/Sci/2

25/11/24 Chennai district

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PART - I**I. Choose the correct answer.**

7x1=7

- Electric field lines ----- from positive charge and ----- in negative charge.
a) start ; start (b) start ; end c) end ; start d) end ; end
- Electroplating is an example for
a) Heating effect (b) Chemical effect c) Flowing effect d) Magnetic effect
- Number of valence Electron in Carbon is
a) 2 (b) 4 c) 3 d) 5
- Compounds have high Melting and Boiling Points
a) Covalent b) Coordinate (c) Ionic
- Stomach of human beings mainly digests -----
a) Carbohydrates (b) Proteins c) Fat d) Sucrose
- The Structural and Functional unit of the Kidney is -----
a) Villi b) Liver (c) Nephron d) Ureter
- The Nutrient required in trace amounts to accomplish various body functions is -----
a) Carbohydrate b) Protein (c) Vitamin d) Fat

PART - II**II. Answer in one or two sentences. (Any five) (Q.No. 10 is compulsory)**

5x2=10

- What are Electric lines of Force? *are path along which unit +ve charge move in electric field*
- State Ohm's Law. $V=IR$ where V = potential difference, I = current R = Resistance
- NaCl is insoluble in Carbon tetrachloride but Soluble in Water. Give reason.
(Ans) Because ionic compounds are soluble in polar solvents
- Identify the following reactions as Oxidation or reduction.
a) $\text{Na} \longrightarrow \text{Na}^+ + \text{e}^-$ - Oxidation
b) $\text{Fe}^{3+} + 2\text{e}^- \longrightarrow \text{Fe}^+$ - Reduction

12. Match the following.

Organ	Elimination
Skin	(a) Urine 4
Lungs	(b) Sweat 1
Intestine	(c) Carbon dioxide 2
Kidneys	(d) Undigested food 3

CH/J/9/Sci/1

13. Why Salt is used as Preservative in Food? Salt removes moisture content in food. It prevents growth of bacteria.

14. Name any two Naturally Occurring Toxic substances in Food.
 (Ans) Prussic acid in seeds of Apple, cherry, fish oil poisoning

PART - III

III. Answer in Brief (Any Three) Q.No.16 is compulsory.

15. (a) Define Electric Field. The region around which electric force is experienced.
 (b) Name any two appliances which work under the Principle of heating effect of Current.
 water heater, toaster, Iron box

16. Calculate the amount of Charge that would flow in 2 hours through an element of an electric bulb drawing a current of 2.5A
 $I = \frac{q}{t}$ $q = It = 2.5 \times 2 \times 60 \times 60 = 18000 \text{ C}$

17. Find the oxidation Number of the Elements in the following compounds.

a. C in CO_2 , $x + 2(-2) = 0$
 $x - 4 = 0$
 $x = 4$ (Ans)

b. N in HNO_3 , $x + 6 + 4(-2) = 0$

$x + 6 - 8 = 0$
 $x = 2$ (Ans)

18. (i) Why do we sweat?

We sweat when it is hot to maintain constant body temperature 37°C

(ii) Mention any two Vital Functions of Human Kidney?

Maintain fluid balance, Regulates acid-base balance of food

19. What are the Effects of Consuming Adulterated Food?

Fever, nausea, vomiting, kidney failure etc

PART - IV

IV. Answer in Detail. (Any Three):

3x7=21

20. a) i) List the Safety Features While Handling Electricity. Ground connection, trip switches, fuse.

ii) A Bird Sitting on High Power Electric line is Still Safe. How?

Because electric lines do not complete the circle.

b) i) Define Electric Current and give its Unit. It is rate at which charges flow across conductor. Unit: Ampere.

ii) How are the Home Appliances Connected in General, in Series or Parallel. Give Reasons.

In Home parallel connection is given. Each appliance can be put on & off independently.

21. a) i) Why are Noble gases inert in Nature?

Because of stable electron configuration.

ii) Discuss in brief about the Properties of Coordinate Covalent Compounds.

(OR)

b) i) An Atom X with Atomic Number 20 Combines with Atom Y with Atomic Number 8. Draw the Dot Structure for the Formation of the Molecule XY. CaO Drawing

ii) List Down the Differences between Ionic and Covalent Compounds.

22. a) i) Describe the Alimentary Canal of Man. Mouth, Tongue, Pharynx, Food pipe, Stomach, Small intestine, large intestine

(OR)

i) Explain the Role of Food Control Agencies in India. ISI, AGMARK, FPO, FSSAI

ii) Write any one Function of the following Minerals.

a) Calcium

↓
bone

b) Sodium

↓
fluid balance

c) Iron

↓
haemoglobin

CH/J/9/Sci/2