

MARKING SCHEME

2ND REVISION TEST ,CLASS - X, SUBJECT - SCIENCE (BIOLOGY)

- 5 Ans. Tropic movements are growth movements of curvature in which the direction of movement is determined by the direction of stimulus.
Phototropism, geotropism, thigmotropism, chemotropism etc. are tropic movements. [1+1=2]
- 12 Ans. Plant hormones or phytohormones are diffusible chemical substances which regulate growth, development, cell differentiation, responses to environment and a number of physiological processes. They are generally synthesized away from the region of action.
i) Role of Auxins- Promote cell elongation, plant movements, respiration in plants etc.
ii) Role of cytokinins - promotes cell division, cell differentiation, phloem transport etc.
iii) Role of gibberellins- breaks dormancy of buds, and seeds, increase number and size of fruits.
iv) Role of abscisic acid - controls growth, checks excessive transpiration by causing closure of stomata. [1+2=3]
- 13 Ans. Structure of neuron - refer NCERT book pg no. 115 (Fig 7.1a)
Function of neuron - It is a structural and functional unit of nervous system which receives, conducts and transmits impulses. [2+1=3]
- 14 Ans. Hydra reproduce by the process of budding which is a type of asexual reproduction. During favourable condition a bulb like projection is developed in the parent body which is the result of repeated cell division on the specific site. It then grows in size. As soon as the bud becomes nutritionally independent, it separates from the parent and grows as new individual.
For diagram refer NCERT book Pg No. 131 (Fig 8.4) [2+1=3]
- 15 Ans. Vegetative propagation is the formation of new plants from vegetative parts of the plants like leaves, stems, roots, buds etc. It is a type of asexual reproduction as there is no fusion of gametes takes place.
Advantages - (i) plants raised by this method bear flowers and fruits earlier than the plants raised through seeds. (ii) It is best method of multiplication of seedless plants such as banana, sugarcane, jasmine etc. [1+2=3]
- 20 Ans. a) Hormone required for synthesis of iodine is thyroxine. It is secreted by thyroid gland which is the largest endocrine gland, attached to trachea below larynx.
b) Parts of fore brain -
Cerebrum- it controls body movements, hearing and gives sensation of taste.
Olfactory lobes- They relay sense of smell.
Diencephalon - It determines our hunger and has control centres for thirst, sleep, sweating etc.
Parts of hind brain-
Cerebellum - it maintains posture of the body.
Pons- It functions as relay centre among different parts of brain.
Medulla oblongata - It controls involuntary actions such as heart beat, respiration etc. [2+3=5]
- 21 Ans. a) Fragmentation is the process of breaking up of the body of an organism into two or more parts.

Each fragment grows into new individual .It is caused by mechanical disturbance,chemicals or decay of older parts Spirogyra is a multicellular algae which reproduces by this method.

b) Regeneration is the ability to repair injured parts and replace the ones lost through accident or self amputation. It occurs due to presence of special stem cells and dedifferentiation of the cells. They first proliferate and form large number of cells.Cells then undergo differentaition giving rise to various cell types and tissues. Planaria is produced by this method.

Regeneration is not similar to reproduction, because organisms will not depend upon being cut or broken for their reproduction. [2 +3 =5]

26. Ans (i) slide shows binary fission in amoeba.

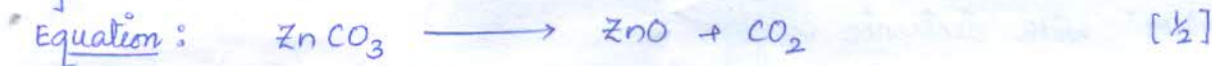
(ii) X - Cytoplasm ; Y - dividing nucleus ; Z - Pseudopodia [1+1=2]

27 Ans A - Plumule ; B - Cotyledon ;C - Testa (seed coat) ;D - radicle [$\frac{1}{2} \times 4 = 2$]

MARKING SCHEME
(CHEMISTRY)

Practice Test-2

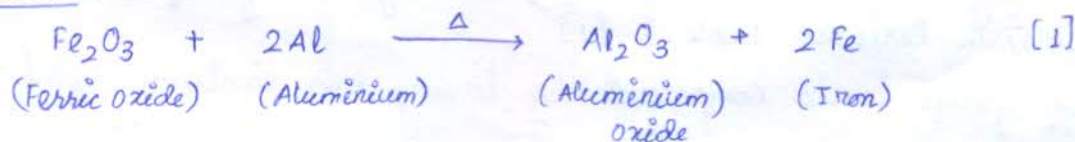
2. ZnO (s) and CO₂ (g) are formed, when ZnCO₃ is heated in the absence of air. [½]



4. i) 'X' is Fe₂O₃ i.e., iron (III) oxide. [½]

ii) The reaction involved is thermite reaction or aluminothermy. [½]

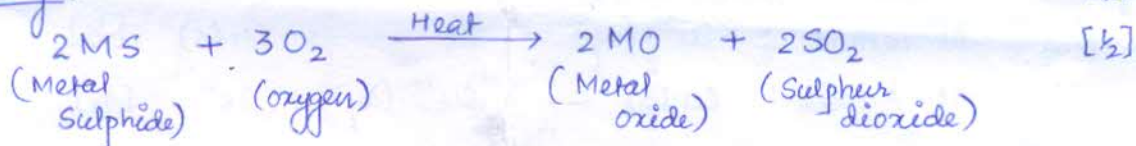
iii) Equation:



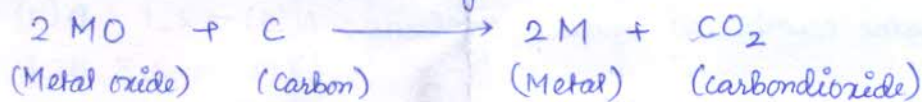
6. i) As the ore produces SO₂ gas on heating, it should be a sulphide ore. Process for the concentration of ore → Froth floatation process. [1]

ii) The two steps involved in the conversion of concentrated ore into metal are:-

a) conversion of the concentrated ore into its oxide by the process of Roasting. [½]



b) Reduction of metal oxide into metal with the help of a reducing agent such as carbon (Smelting). [1]



7.

| | | | | | | | | | |
|------------------|---|---|---|---|---|---|---|---|---|
| | | K | L | M | N | | | | |
| ₄ Be | (| 2 | , | 2 |) | | | | |
| ₁₂ Mg | (| 2 | , | 8 | , | 2 |) | | |
| ₂₀ Ca | (| 2 | , | 8 | , | 8 | , | 2 |) |

a) They should be in the IInd group as they have 2 electrons in their valence shell. [1]

b) Beryllium is the least reactive. [½]

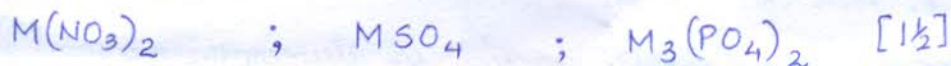
[Reason:- As we move down the group, the metallic property increases i.e., tendency to lose electrons easily]. [½]

c) Calcium has the largest atomic size. [½]

Reason:- As it has four shells and the atomic size increases as we move down in a group due to addition of new shells. [½]

8. Element 'M' with electronic configuration (2, 8, 2)

Formula of the three compounds formed with $(NO_3)^-$, $(SO_4)^{2-}$, $(PO_4)^{3-}$ radicals are:



⇒ As the configuration is considered, M belongs to group 2 and period 3 of the Modern Periodic table. [1]

⇒ M will form ionic compound by losing two electrons. [½]

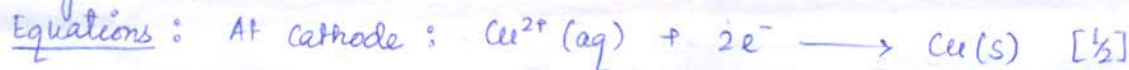
18. i) Name of alloy → solder [½]

Its constituent elements → Lead and Tin [½]

ii) To protect iron articles from corrosion as the surface of iron is not exposed to moist air. [1]

iii) Explanation [1]

Diagram [1]



19. i) Element A → Lithium Element B → Fluorine [½ + ½]

ii) Formula of compound → AB [1]

iii) They have same number of valence electrons; A (3) → 2, 1 ; B (11) → 2, 8, 1 [1]
E (19) → 2, 8, 8, 1

iv) B is more electronegative compared to C. [1]

v) Increasing order of atomic radii → $A < D < E$ [1]

24. i) Atom of M is bigger than atom of N.

ii) M is more metallic than N.

iii) M (Group I) : valency 1 ; N (Group II) : valency 2

iv) Formulae of chlorides : MCl ; NCl_2

25. i) $D < C < A < B$ [1]

ii) B will displace Cu from $CuSO_4$ as B is more reactive than copper. [1]

PHYSICS Practice test-2. class 8

Q-1. Methane 75% of volume $\frac{1}{2} + \frac{1}{2}$.

Q-3 $P = 2000W$ $V = 220V$

$$I = \frac{P}{V} = \frac{2000}{220} = 9.09A \quad - (1)$$

Minimum rating of fuse should be 15A - (1)

Q-9  $(\frac{1}{2} + \frac{1}{2})$

(1+1)

2 differences

Q-10 (i) Current will induced in anticlockwise direction - (1)

(ii) No current will get induced. - (1)

(iii) current will induced in coil in clockwise direction - (1)

Q-11 (i) friendly in behaviour, eco-friendly. - (2)
Good convincing power

(ii) Reason - (1)

Q-16. Defⁿ - (1)

Difference - (3)

factors - (1)

Q-17. (i) Diagram - (1)

(ii) Right hand thumb rule - (1)
Statement -

(iii) $B \propto I$ for constant r — (1)

(iv) α -particles - Magnetic field will be produced because α particles are +vely charged. — (1)

neutrons - No magnetic field will be produced because neutrons are neutral — (1)

Section B:

Q-1 Role of fuse — (1)

live wire. — (1)

Q-2. Black aluminium sheet \rightarrow for absorbing. (1/2)
maximum sunlight

glass wool :- to reduce loss of heat - as wool is poor conductor of heat (1/2)

glass sheet :- To increase temperature inside cooker due to green house effect (1/2)

Mirror plate \rightarrow For reflection of sunlight towards cooker — (1/2)