

TECHNO MISSION SCHOOL

Samastipur-848101

Class- Std X

Subject- Science

JSUNIL TUTORIAL

Time- 3 Hours

F.M.- 80

Attempt all the questions as all questions are compulsory

A. Very Short Answer Questions Carrying 1 mark each, answer in one word or sentence: (8)

- (1) What is the effect of impurities on residence?
- (2) Why Hydrogen peroxide is stored into Amber coloured bottles?
- (3) Name the largest gland in our body?
- (4) Why the food containing tomatoes, should not be cooked in Copper Vessels?
- (5) What is the unit of Resistivity?
- (6) Why is energy required by an organism even during sleep?
- (7) In which part of nephron is water reabsorbed?
- (8) Give an example of an organism whose digestron is intra cellular.

B. Short Answer Questions Carrying 2 marks each, answer in 30-40 words: (22)

(9) Justify the statement that a decomposition reaction is the opposite of a combination reaction.

(10) What is Rancidity? Give any two measures to prevent it?

(11) Plants have low energy needs as compared to animals.

Explain

(12) Write down the function of lymph nodes.

(13) Make differences in between metals & non metals on the basis

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of their characteristic properties.

(14) What are the factors on which Resistance of a conductor depends?

(15) Define the term 'exchange coupling'. How it helps the ferromagnetic substance to get magnetised.

(16) Two bulbs 60 w, 220 v and 100 w, 220 v are connectd in series to a 440 v supply. Which of the bulb will fuse? What happens when they are connected in parallel?

(17) Name the correct substrats for the following enzymes.

(a) Trypsin

(b) Amylase

(c) Pepsin

(d) Lipase

(18) Write the chemical name of Plaster of Paris. Give the chemical reaction when it reacts with water.

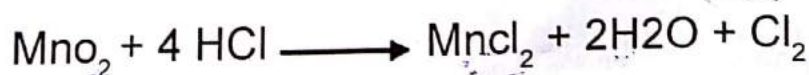
(19) Make differences in between anhydrous and hydrated salt with suitable example.

C. Short Answer Questions Carrying 3 marks each, answer in 40-50 words: (30)

(20) Write the properties of magnetic lines of forces a round a circular coil.

(21) What is bioenergy? Write a short note on biogas plant.

(22) Define Oxidation & reduction reactions? In the redox reaction



Which substance is oxidised and which is reduced.

(23) How can you determine the energy liberated in a nuclear reaction.

(24) Explain the statement, "Bile does not contain any enzyme but it

is essential for digestion".

- (25) Why is pancreas called a 'dual function' gland? Write the names of its hormones.
- (26) What is corrosion? Write the rusting of Iron. Give any two prevention from rusting?
- (27) Define 'nerve impulse'. Which structure in a neuron helps to conduct a nerve impulse
- [a] towards the cell body?
- [b] away from the cell body?
- (28) Name three plant hormones. Also give their Physiological effects on plant's growth and development.
- (29) What do you mean by washing Soda? How it can be obtained commercially?

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D. Long Answer Questions Carrying 5 marks, answer in 70 words:

(20)

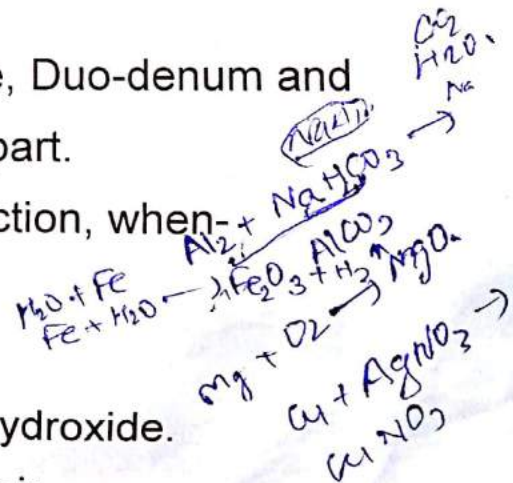
- (30) Draw the diagram of alimentary canal of man and label the following parts:-

Mouth, Oesophagus, Stomach, intestine, Duo-denum and Pancreas. Explain the function of each part.

- (31) Write balanced chemical eqⁿ for the reaction, when-

- (a) Copper is heated strongly in air.
- (b) Steam is passed over red hot Iron.
- (c) Aluminium is treated with sodium hydroxide.
- (d) Magnesium ribbon is burn in open air.
- (e) Copper strip is dipped in aq silver nitrate solution.

- (32) Explain the principle and working of D.C motor.



P.T.O.

- (33) [a] Calculate the area of cross section of a wire if its length is 1.0 m, resistance is 23π and the resistivity of the material of the wire is $1.84 \times 10^{-6} \pi \text{ m}$.
- [b] Two resistors, with resistances 5π and 15π are to be connected to a battery of emf 9V so as to obtain.
- (i) minimum current (ii) maximum current.
- (a) Show with the help of a diagram how you would connect two resistance in each case.
- (b) Calculate the strength of the total current in the circuit in each of two cases.

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$l = 1.0 \text{ m}$
 $R = 23 \Omega$
 $\rho = 1.84 \times 10^{-6} \Omega \text{ m}$

$R = \frac{\rho l}{A}$
 $R = \frac{\rho}{A} \cdot l$

$\frac{R \times A}{l} = \rho$

$\frac{23 \times A}{1.0} = 1.84 \times 10^{-6}$

$23 \times A = 1.84 \times 10^{-6} \times 1.0$
 $A = \frac{1.84 \times 10^{-6}}{23}$

$$\begin{array}{r} 1.84 \\ \times 1.0 \\ \hline 1840 \end{array}$$



$23 \mid 1.84$