GOVERNMENT HIGH SCHOOL NEELSANDRA

9TH STANDARD SUMMATIVE ASSESMENT - 1

MODEL SCIENCE QUESTION PAPER

TIME : 1.30 MIN   **SUBJECT: SCIENCE**   **MARKS: 40**

NAME:

ROOM

SUPERVISIOR :

40

ANSWER THE FOLLOWING :

1 x 6 = 6

1.Matter is made up of ---------------

a. Large particles   b. Small particles   c. Very small particles   d. Very large particles

2. Solution is a homogenous mixture of ------------------- substances

a. two or more   b. 1 and 3   c. 5   d. All.

3. Protein synthesized inside the cell ------------------

a. nucleus   b. Chloroplast   c. Endoplasmic reticulum   d. Chromatin

4. xylem and phloem are types of ---------------

a. connective tissue   b. Epithelium tissue   c. Muscular tissue   d. Complex tissue .

5. The acceleration of an object is the change in -------- per unit time

a. velocity   b. Motion   c. Acceleration   d.Distance

6. Mass of 1 mole of a substance is called its --------------------------------

a. molar mass   b. Velocity   c. speed   d. Density.

II. Match the following :

Sl no	A	B	Ans
1	CNG	Newton	
2	LPG	In Hospital	
3	Oxygen cylinder	Compressed Natural Gas	
4	Weight	Liquid petroleum Gas	
5			

III. Answer the following :

1 x 4 = 4

1. State the law of conservation of mass.

2. What does the odometer of an automobile measure

3. Name type of simple tissues

4. Where do the lipids and protein s constituting   the cell membrane get synthesized ?

IV. Answer the following :

5. Convert the following temperature to the Celsius scale . [a] 293 K   [b] 470 k

6. Mention the factors affecting the evaporation .

7. Mention the effects of force

8.What is the role of the Epidermis in plants ?

9. A stone of 1 kg is thrown with a velocity of 20 m/s per second across the frozen surface
Of a lake and comes to rest after travelling a distance of 50 m.   What is the force of friction?
Between the stone and the ice.

10. Compare the use of manure and fertilizers in maintaining soil fertilizer .

11.Calculate the mass of 0.5 mole N_2 gas [mass from mole of molecule]

12. Draw a label diagram of a Neuron.

13. An artificial satellite is moving in a circular orbit of radius 42250 km . Calculate its speed if it takes 24 hrs to revolve around the earth .

14. An egg sinks in fresh water but floats in highly salty water give reason.

3 x 2 = 6

15. Draw a neat diagram of plant cell and label the parts given

[a] Nucleus   [b] Chloroplast   [c] cytoplasm   [d] Mitochondria OR

4 x 1 = 4

15.[A] How do you differentiate between capture fishing , mari culture and aquaculture ?

ANSWERS:

III. Answer the following :

1. State the law of conservation of mass.

During a chemical reaction the sum of the masses of the reactants and products remains unchanged.

2. What does the odometer of an automobile measure

Distance travelled by an object.

3. Name type of simple tissues

Parenchyma Collenchymas Sclerenchyma

4. Where do the lipids and protein s constituting the cell membrane get synthesized ?

Endoplasmic reticulum mitochondria

IV. Answer the following :

$$2 \times 8 = 16$$

5. Convert the following temperature to the Celsius scale . [a] 293 K [b] 470 K

[a] 293k – 273 = 20 º C [b] 470 – 273 = 197 º C

6. Mention the factors affecting the evaporation .

Increase of surface area ,increase of temperature decrease in ︐ wind speed.

7. Mention the effects of force

1. Move a stationary body

2. Stop a moving body

3. Change the direction of motion of the body

4. Change the shape and size of the body

8.What is the role of the Epidermis in plants ?

1.Protects all parts of the plant body

2. Water resistance due to waxy substance

3. Protection against loss of water.

9. A stone of 1 kg is thrown with a velocity of 20 m/s per second across the frozen surface

Of a lake and comes to rest after travelling a distance of 50 m. What is the force of friction

Between the stone and the ice.

Initial velocity of the stone = u = 20 m/s

Final velocity of the stone v = 0

Distance covered by the stone s = 50m Since $v^2 - u^2 = 2as$

OR $0 - 20^2 = 2a \times 50 \Rightarrow -400 = 100a \Rightarrow 100a = 400 \Rightarrow a = \frac{400}{100} = -4$ ms^{-2}

V2 = u + 2as

$a = \frac{400}{100} =$ [question 6] chapter force and law s

10. Compare the use of manure and fertilizers in maintaining soil fertilizer .

Sl no	Manure	Fertilizer	
1	Produced natural phenomenon	Produced from chemical forces	
2	Dosage is not fixed	Dosage is fixed	
3	Maintain the PH of soil	PH of soil may be altered	
4	Rich with microbes- Nutrients' And do not pollute the soil	Rich with phosphorus potassium and pollute the soil.	

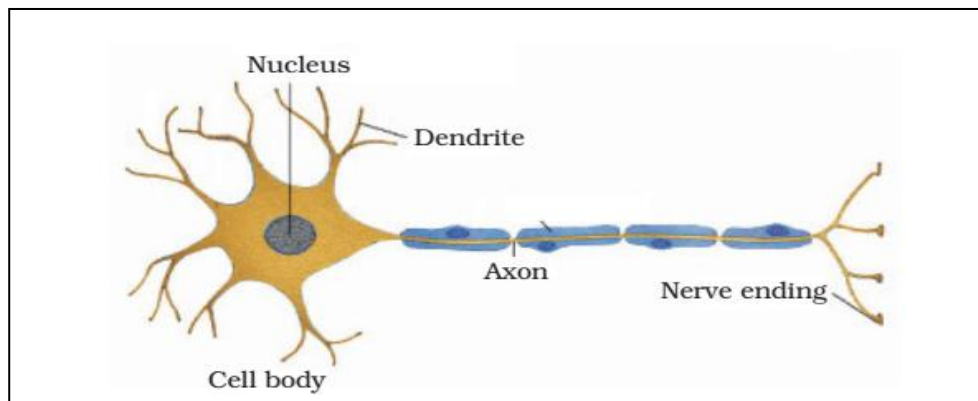**11.Calculate the mass of 0.5 mole N_2 gas [mass from mole of molecule]**

Solution : - The number of atoms

$$= \frac{given\ mass}{molar\ mass} \text{ x Avogadro numbe}$$

$\boxed{\Rightarrow}$ $= N = \frac{m}{M} \text{ x N}_0$.

$\boxed{\Rightarrow}$ $= N = \frac{46}{23} \text{ x 6.022 x 10}^{23}$ .12. Draw a label diagram of a Neuron.

13. An artificial satellite is moving in a circular orbit of radius 42250 km . Calculate its speed if it takes 24 hrs to revolve around the earth .

Radius of the circular orbit r = 42250 km.

Time taken to revolve round the earth t = 24 h

Speed of a circular moving object $v = (2\pi r)/t$

$= [2 \times \frac{22}{7} \times 42250 \times 1000 / (7 \times 24 \times 60 \times 60) \text{ms}^{-1}]$.

$= 3073.74 \text{ ms}^{-1}$.

14. An egg sinks in fresh water but floats in highly salty water give reason.

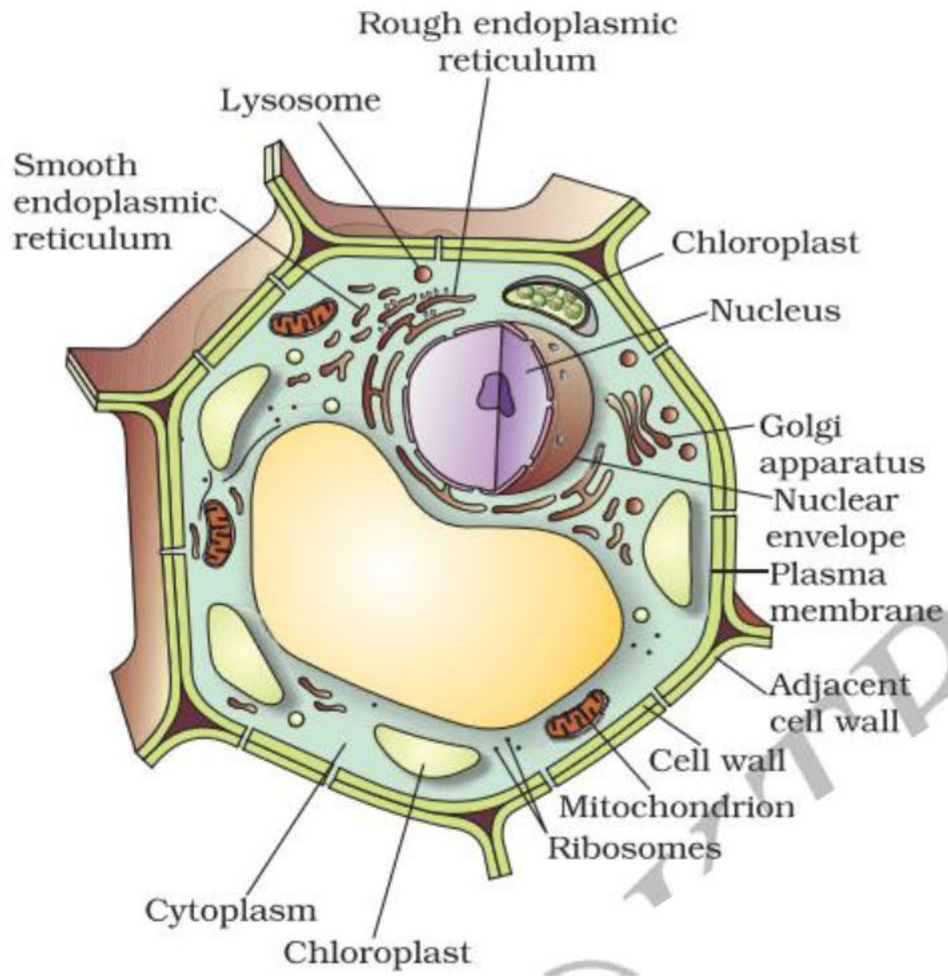Up thrust acting on egg fresh water is less than the weight of egg therefore it sinks in fresh water

However the density of salty water is much greater than the density of fresh water. So up thrust

Acting on egg in salty water is greater than the weight of egg.

15. Draw a neat diagram of plant cell and label the parts given

[a] Nucleus [b] Chloroplast [c] cytoplasm [d] Mitochondria

Rough endoplasmic reticulum

Lysosome

Smooth endoplasmic reticulum

Chloroplast

Nucleus

Golgi apparatus

Nuclear envelope

Plasma membrane

Adjacent cell wall

Cell wall

Mitochondrion

Ribosomes

Cytoplasm

Chloroplast

THE END