JAFFNA HINDU COLLEGE

Risk Holiday Self - Education Worksheet - 2020

Grade - 10 | Science

Name/Index No : ……

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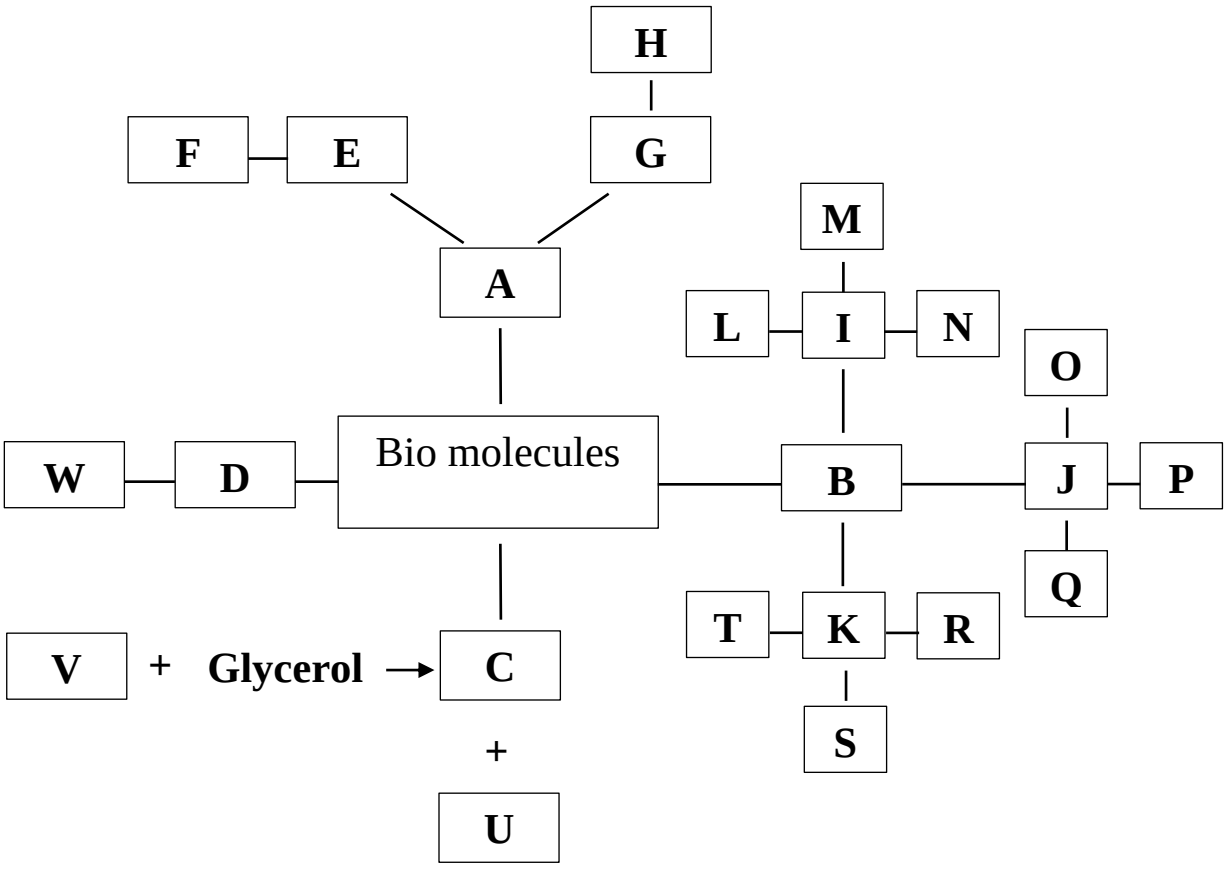
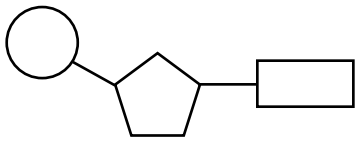
Unit 01 – Chemical basis of Life

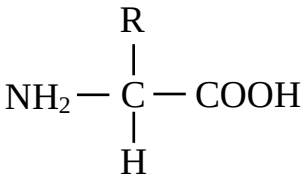
01. Identify the following Concepts A-W by using the atatements given below.

1. M – Know as “Fruit sugar”
2. O is an intermediate product of Rhydrolysis.
3. T s present in animal’s Liver.
4. Q forms by the Combination of L,M
5. G is importance for the Synthesis of D.
6. F.H.W are the structural units of E,G,D Respectively.



02. Answer the following using above diagram.

1. I. 

II. 

Name the English Letters that denote fiquare I and II

2. State the chemicals that used to identify D.
3. List down 3 significance of protein.
4. What is your observation, when benedict's solution was added to L
5. State 2 specific characters of U.

03. Name a deficiency symptoms in plants by the following minerals.

1. N Nitrogen -
2. Fe Iron -
3. Zn Zinc -
4. Ca Calcium -
5. K Potassium -

04. Identify the relevant vitamin for the deficiency symptoms.

1. Bleeding gum -
2. Tooth decay -
3. weakness in cell division -
4. Internal bleeding -
5. Diseases associated with respiratory tract -

Unit 02 – Motion in a straight line.

1.

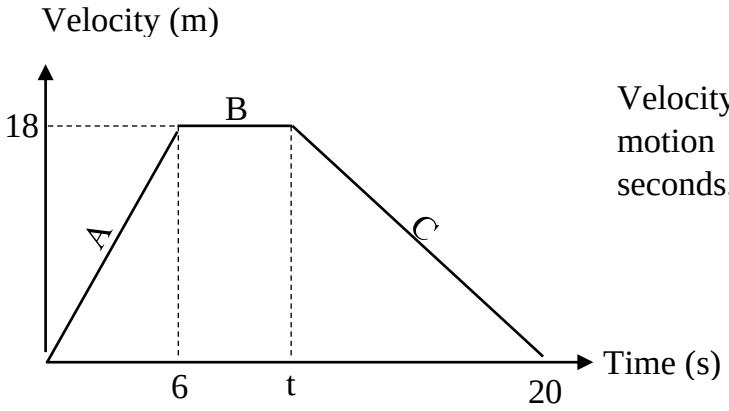
Time (S)	0	1	2	3	4	5	6	7	8
Displacement (m)	0	4	8	12	16	16	16	8	0

The above chart shows the motion of a vehicle answer the following using above chart.

1. State the above quantities belongs to which type of quantity.

2. Calculate the speed aftter 2 seconds from rest.
3. State the time intervel that the vehicle was in rest.
4. What can you say about the motion of vehicle during last 2 seconds.
5. Find out the total distance that the vehicle moves.
6. Calculate the average speed.

2.



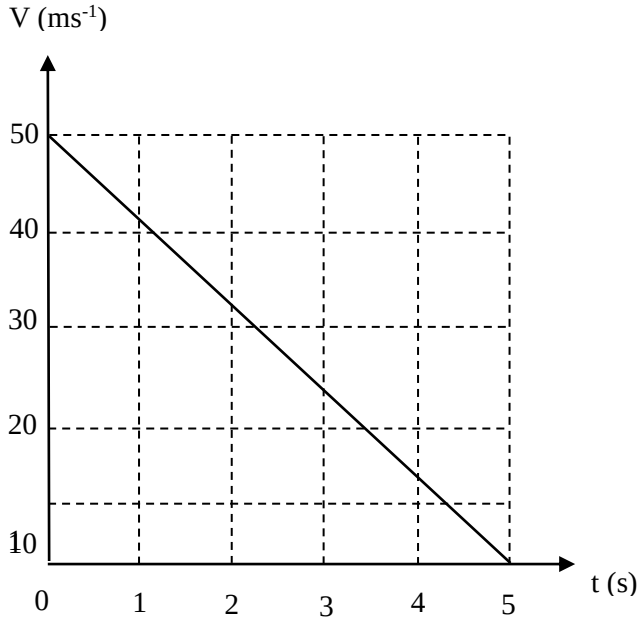
Velocity time graph represented by motion of an 600kg objects move 20 seconds.

1. Which part of graph denots the acceleration of an object.
2. Find the maximum velocity of the object during that period.
3. How long has it taken to reach maximum velocity.
4. If the onject move 72m with the constant velocity. Find the vlue of "t"
5. Find the rate of change of the velocity during last 20 seconds.
6. How is known as "Rate of change of the velocity"
7. What is the total distance that object moved.
8. Find the momentum of force in the moving stage B.

3. A Car travels in a straight line path from rest and moves 5S with the acceleration of gms^{-2}. After gain a specific velocity it moves 15s with that gain velocity. Finaly it comes to rest with uniform deacceleration during 3 seconds.

1. Find the velocity of Car in First 5S.
2. How long the car travell in uniform velocity.
3. Find the deacceleration during last 3S.
4. Sketch the velocity time graph for the above motion of and object.

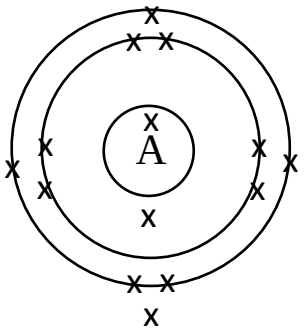
4. The below velocity time group shows, a stone projected vertically upwards with a specific velocity.



1. Find the initial velocity of a stone.
2. Find the finall velocity of a stone.
3. Find the time taken by the object reach its maximum hight.
4. What is the maximum hight reaches by the object.

Unit 02 – Structure of Matter

01.



Answer the following questions using this electronic configuration figuare. A is not the real symbols of an atom.

1. Atomic number?
2. Number of electrons?
3. Number of Protons?
4. electronic configuration?
5. Number of energy levels
6. Periodic number / period of the element.
7. Valency
8. Group to which the element belongs
9. If the mass number of "A" is 28. Find out the number of neutrons.
10. Identify the element "A"

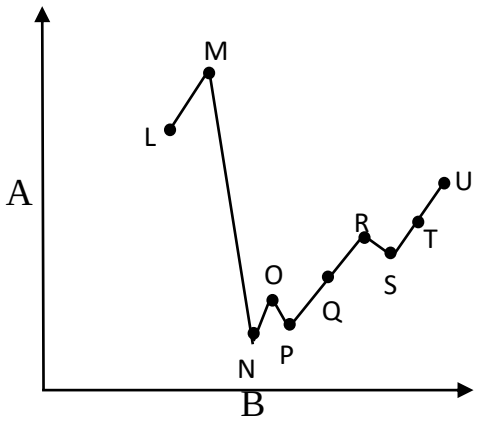
02.

P			Q		R		S
T	U		V				

Answer the following questions by using above Periodic Table. The symbols used here is not the real symbols of elements.

1. Name an element that has the valency 2.
2. State a metalloid.
3. Which element is not react with other any elements.
4. State the electronic configuration of an element that stated in question 3.
5. What is the reason for the above element is not react with other elements.
6. Name a element that react with odd water vigourously.
7. Which element has the allotrop of diamond.
8. Name a pair of elements that contain equal valency.

03.

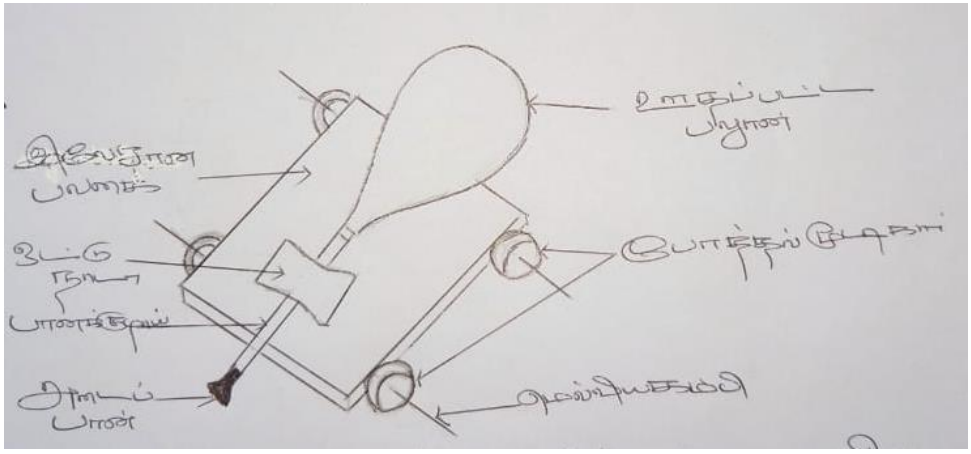


The graph shows thw first ionistion energy varies against atomic number of 10 serial elements belongs to second and third periodic of Periodie table. donated letters are not real symbols

1. What do you mean by "1st ionisation energy"
2. Identy A and B.
3. State the unit that measures the quantity A.
4. State the periodic and group of element R.
5. Name the element that has maximum / highest electro negativity.
6. State the reason why the N has minimum / less 1st ionaization energy than element L.

Unit 04 - Nution's Lw of Motion

01.



The above play toy was made by a student.

1. What is your observation when remove the cork.
2. The above action is related to which lows of motion.
3. State the above low.

02.

1. Why are the passengers standing on a moving bus. thrust forward when brakes are suddenly applied.
2. A Passenger is seated in a bus at rest. If the bus starts to move without his knowlwdge. Why is he pushed back ward.
3. The above (1), (2) statements related to which lows of motion.
4. State that law.

03.

1. What is the force required, when a mass of 5kg object moving uniform velocity and gain $25ms^{-1}$ acceleration.
2. If the weight of an object is 132N. Find the mass of an object.
3. Find the mass of an object in moon.
4. Find the weight of and above an object in moon.

Unit 05 - Friction

01.

P

Not moving its in rest

Q

It just begins to move

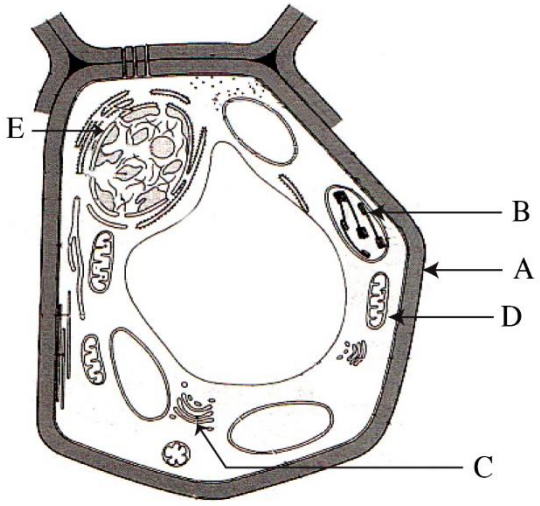
R

It is moving | Relative motion

The above block was placed in a horizontal plane and the forces were applied in different P,Q,R instances.

1. Identify the frictional force act on a body for the situations P,Q and R.
2. If the face of B in a horizontal plane and then same force is applied the face B. what can you say about the value of limitting frictional force (Is it equal / Is it graterthan previous / Is it less than previous value)
3. State the uses of friction.
4. Write down 2 methods used to reduce friction and 2 methods used to increase friction.

Unit 06 – Structure and functions of the plant and animal cell.



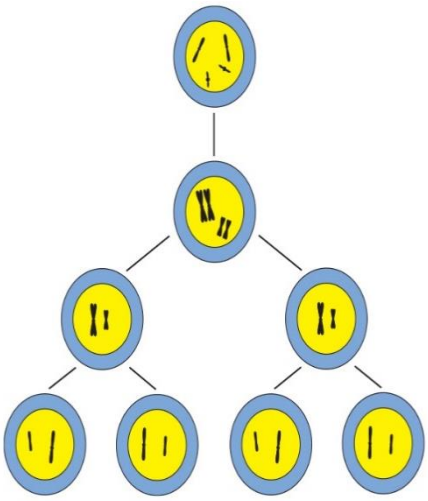
01. The electrone microscopic figuare of plant cell was given here. Answer the following questions using this figuare.

1. Name the organells A to E.
2. Name the specific structrual part if A.
3. Which organells contain double layer membrane.
4. Which of the above organell is present in plant cell and (not present) abesnt in animal cell.

5. Fill in the blanks.

Organell	Function
_____	control of life activities of the cell
_____	Producing energy for metabolic activities of the cell.
D	_____
C	_____

02.



1. What is cell divission.
2. What are the two types of cell division.
3. Which part of cell divided first in the cell division takes place in eukaryotic cells.
4. The above indicate which type of cell division.
5. The dautes cells formed in above (qu.4) cell division, varies from mother cell. How?