FOR GOD AND COUNTRY

ST.LAWRENCE HIGH SCHOOL

1st TERM EXAMINATION-2019

CLASS-VI

SUBJECT: GENERALSCIENCE F.M.90

DURATION: 2HRS 30MINS DATE:11.4.2019

12/4/19

(BELINE JERMY PETER)

SECTION-A **(25marks)**

A. CHOOSE THE CORRECT OPTION: **(1X5=5)**

1. The _____ is said to be selectively permeable membrane because it allows only some substances to pass through.
   (b) plasma membrane
2. The time taken by the Earth to complete one rotation about its own axis is called _____.
   (a)mean solar day
3. Amyloplast is a type of _____.
   (c)leucoplast
4. In which of the following cases does the substance change?
   (b)burning of wood
5. An erratic movement of small solid particles suspended in a fluid is called _____ movement.
   (a)Brownian

B. FILL IN THE BLANKS: **(1X5=5)**

1. The standard unit of length in SI system is **meter.**
2. **Time** is the interval between two events.
3. The time between the birth and death of an organism is called its **Life span.**
4. The term cell was coined by **Robert Hooke**.
5. On being **cooled**, a gas changes into a liquid.

C. STATE WHETHER THE FOLLOWING STATEMENT IS TRUE OR FALSE: **(1X5=5)**

1. Prokaryotes contain membrane bound nucleus. **False**
2. The process of throwing out waste from the body is called locomotion. **False**
3. Alchemists accepted the four-element theory. **False**
4. The growth of a plant is a chemical change. **True**
5. Bose Einstein condensate is considered as the fifth state of matter. **True**

D. NAME THE FOLLOWING: **(1X5=5)**

1. The amount of space occupied by an object. **Volume**
2. Who is considered to be the father of modern chemistry? **Antoine Lavoisier**
3. Powerhouse of the cell. **Mitochondria**
4. The amount of surface covered by an object. **Area**
5. Name the plastid found in roots. **Leucoplasts**

E. MATCH THE COLUMNS : **(1X5=5)**

COLUMN A	COLUMN B
1. Movements of curvature	**Plants**
2. Chromoplasts	**Carotenoids**
3. Mendeleev	**Periodic table**
4. 1 metric ton (t)	**10q**
5. Mass	**kilogram**

SECTION-B (25marks)

F. ANSWER THE FOLLOWING QUESTIONS: **(2X5=10)**

1. Define intermolecular force and intermolecular space.(2)
   The force of attraction between the particles of matter is called intermolecular force. The space between the particles of matter is called intermolecular space.
2. What was the two aims of the alchemists?(2)
   Alchemists had the following two aims- Converting cheaper metals into gold and Searching for the elixir of life.
3. Define Chemistry.(2)
   Chemistry is the science of substances and transformations that deals with the composition and properties of substances and various elementary forms of matter.
4. Define Stimuli and Sensitivity.(2)
   Stimuli are things or events that evoke a specific functional reaction in an organ or tissue. The ability to respond to stimuli is called sensitivity.
5. What are autotrophs and heterotrophs?(2)
   Organisms that are capable of synthesizing their own food from inorganic substances, using light or chemical energy. Examples: Green plants and algae.
   Organisms that are not capable of producing their own food, instead relying on the intake of nutrition from other sources of organic carbon, mainly plant or animal matter. Examples: Humans and animals.

G. SHORT ANSWER TYPE QUESTIONS: (attempt any 5 out of 7) **(3X5=15)**

1. What is parallax error? How can it be avoided?(3)
   The error that occurs due to incorrect positioning of the eye. In order to avoid such errors, it is advised to keep one eye shut while taking the measurement.
2. Mention the units of temperature and their symbols.
   Kelvin- K, Celsius- °C, Fahrenheit- °F
3. Define measurement. What are the 2 parts of a measurement? (3)
   The comparison of an unknown quantity with a known fixed quantity of the same kind is called measurement. The first part of the measurement is numerical value and the second part is unit of measurement.
4. Define Boyle's law.(3)
   Boyle's law state that , at a fixed temperature, the volume of a gas decreases with increase in pressure and increases with decrease in pressure.
5. What are the three kinds of changes that the matter undergoes on being heated?(3)
   Expansion , change in state and chemical change.
6. Why are cells called the structural and functional units of living organisms?(3)
   Cell is called the structural and fundamental unit of life because cells together forms tissues, tissues together forms an organ, organs together forms an organ system and organ systems together forms an organism. It is functional unit of life because all the functions of body are carried out by cells.
7. What are the premises of cell theory?(3)
   - **All living organisms are made up of one or more cells.**
   - **Cell is the basic structural and functional unit of life.**
   - **All cells arise from the pre-exixting cells.**

SECTION-C (40marks)

H. EXPLAIN IN BRIEF: (attempt any 8 out of 10, in which Q.no.8 is compulsory) (5X8=40)

1. Write any 5 differences between solids, liquids and gases. (5)

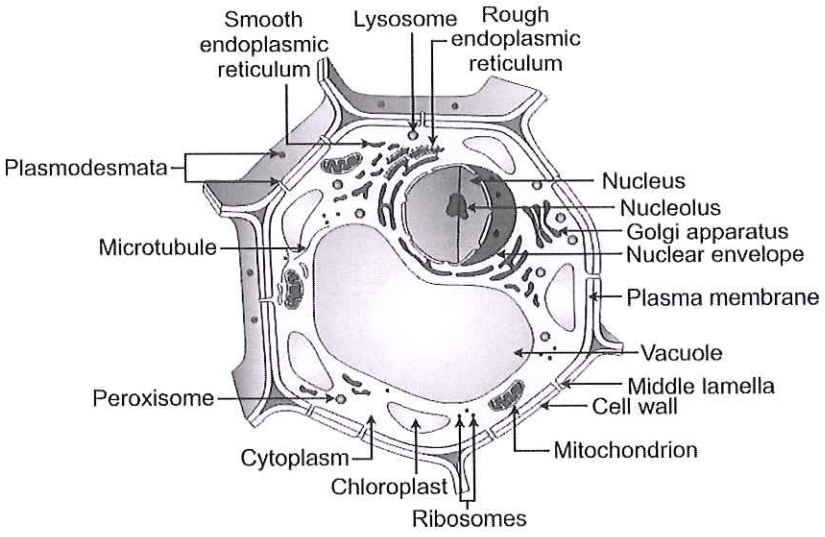
Characteristics	Solid	Liquid	Gas
1. Shape	fixed shape	no fixed shape	no fixed shape
2. Volume	fixed volume	fixed volume	no fixed volume
3. Rigidity/fluidity	are rigid, cannot flow	can flow, not rigid	can flow, not rigid
4. Intermolecular force	maximum	less than solids	very less
5. Intermolecular space	very less	more than solids	maximum and less than gas
6. Compressibility	negligible	compressible	highly compressible

2. (a)What is the difference between mass and weight?(2)
   Mass is the quantity of matter contained in a body whereas weight is the force of gravity exerted on the body due to its mass.
   (b)Explain the purpose of a constriction in a clinical thermometer.(3)
   The clinical thermometer has a slight bend or kink called a constriction, in its capillary tube just above the bulb. This constrictionprevents the mercury level in the stem from dropping even after the thermometer is taken out of the patient's mouth. Thus, we can take our timeto read the temperature accurately.
3. (a)How many hours are there in 6 days and 8 hours?(3)
   One day =24 hours
   So, 6 days = (24x6) hours = 144 hours
   Thus, 6 days and 8 hours = 144 hours + 8 hours = 152 hours.
   (b)Find the area of a rectangular box whose length is 12m and breadth is 4m.(2)
   Length = 12m
   Breadth = 4m
   Area of a rectangle = *lb*
   So , Area of a rectangular box = *lb*= 12x 4= 48m^2.
4. Mention the atomic number and the name of the given elements. (5)
   (a) Co- **Cobalt- Atomic number 27** (b)Be- **Beryllium- Atomic number 4**
   (c)K- **Potassium- Atomic number 19** (d)Zn- **Zinc- Atomic number 30**
   (e)Ar- **Argon- Atomic number 18**
5. Define the following:
   (a)Melting: **The change in state from solid to liquid.**
   (b)Evaporation: **The change in state from liquid to gaseous.**
   (c)Liquefaction: **The change in state from gaseous to liquid.**
   (d)Freezing: **The change in state from liquid to solid.**
   (e)Sublimation: **The change in state from solid to gaseous.**
6. List out any 5 characteristics by which we recognise a living being. (5)
   - **Living beings are made up of cells.**
   - **Living beings grow.**
   - **Living beings need food.**
   - **Living beings respire.**
   - **Living beings throw out waste.**
   - **Living beings respond to stimuli.**

- **Living beings move.**
- **Living beings reproduce.**
- **Living beings follow a life cycle.**

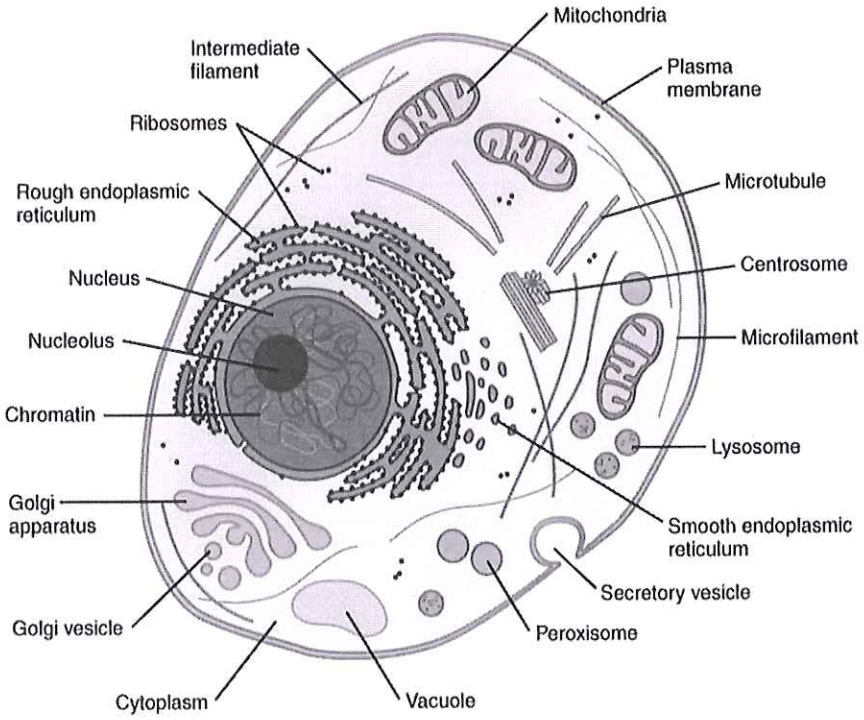
7. Mention the salient features of the Dalton's atomic theory.(5)
   - **Elements are made of extremely small indivisible particles called atoms.**
   - **The atoms of an element are all alike and differ from those of others.**
   - **Atoms can neither be created nor destroyed**
   - **Atoms of different kinds combine among themselves to form a compound.**
   - **Atoms rearrange themselves in a chemical reaction.**

8. (a)Draw and label the parts a plant cell. (5)



(or)

(b)Draw and label the parts of a animal cell.(5)



9. How do multi-cellular organisms grow? (5)

The life of a higher organisms starts from a single cell called zygote, which is formed by the fusion of male cell and a female cell. The single cell divides into two cells , two cells into four cells, and so on. Thus, the zygote grows into an embryo, the embryo into a baby , the baby into an adult.

10. Explain the structure of a nucleus.(5)

The nucleus, the most important organelle, controls all the vital activities of a cell. It may be spherical or oval. It is enclosed by a membrane called nuclear membrane and is filled with nucleoplasm, a dense semifluid substance. One or two small spherical bodies called nucleoli, lie within the nucleus. The nucleus contain fine , threadlike structures arranged in a network called chromatin networks.

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