

6TH SCIENCE I TERM EM FULL GUIDE**1.Measurement****I. Choose the correct answer**

- The girth of a tree can be measured by
a. Metre scale b. Metre rod c. plastic ruler **d. measuring tape**
- The conversion of 7 m into cm gives
a. 70 cm b. 7 cm **c. 700 cm** d. 7000 cm
- Quantity that can be measured is called
a. Physical quantity **b. Measurement** c. unit d. motion
- Choose the correct one
a. km > mm > cm > m b. km > mm > cm > km
c. km > m > cm > mm d. km > cm > m > mm
- While measuring length using a ruler, the position of your eye should be
a. Left side of the point.
b. Vertically above the point where the measurement is to be taken.
c. Right side of the point d. Any where according to one's convenience.

II. True or False

- 126 kg is the correct way of expressing mass. **True**
- Length of one's chest can be measured by using metre scale. **True**
- Ten millimetres makes one centimetre. **True**
- A hand span is a reliable measure of length. **False**
- The SI system of units is accepted everywhere in the world. **True**

III. Fill up the blanks

- SI Unit of length is symbolically represented as ____ (**meter(m)**)
- 500 gm = ____ kilogram ($\frac{1}{2}$)
- Distance between Delhi and Chennai can be measured in ____ (**Kilometer**)
- 1 m = ____ cm (**100**)
- 5 km = ____ m. (**5000**)

IV. Analogy

- Sugar : Beam balance; Lime juice : ____? **Ans: beaker**
- Height of a person : cm ; length of your sharpened pencil lead? ____ **Ans : mm**

3. Milk: volume ; vegetables? **Ans : mass**

V. Match the following

1. Length of the fore arm	a. metre
2. SI unit of length	b. second
3. Nano	c. 10^3
4. SI Unit of time	d. 10^{-9}
5. Kilo	e. Cubit

ANS

1. Length of the fore arm	a. Cubit
2. SI unit of length	b. metre
3. Nano	c. 10^{-9}
4. SI Unit of time	d. second
5. Kilo	e. 10^3

VI. Arrange in increasing order of unit

1 Metre, 1 centimetre, 1 kilometre, and 1 millimetre.

Ans : 1 millimetre → 1 centimetre → 1 Metre → 1 kilometre.

VII. Answer in a word or two.

1. What is the full form of SI system? **International system of Unit**
2. Name any one instrument used for measuring mass. **Beam balance**
3. Find the odd one out Kilogram, Millimetre, Centimetre, Nanometre **Ans : Kilogram**
4. What is the SI Unit of mass? **Kilogram.**
5. What are the two parts present in a measurement? **Number and its unit.**

VIII . Find the answer for the following questions within the grid

1. 10^3 is one ____ (**milli**).
2. SI Unit of time ____ (**second**.)
3. Cross view of reading for a measurement leads to ____ (**error**)
4. ____ is the one what a clock reads (**Time**)
5. ____ is the amount of substance present in an object (**Mass**)
6. ____ can be taken to get the final reading of the recordings of different of students for a single measurement. (**Average**)

7. ____ is a fundamental quantity(**Length**)
8. ____ shows the distance covered by an automobile(**Odometer**)
9. A tailor use ____ to take measurements to stitch a cloth(**tape**)
10. Liquids are measured with this physical quantity ____ (**litre**)

Make the Mark:

A		P		L								R		K
C		O		E								O		S
M		K		N								R		I
P		R		G								R		T
R	H	E	S	T	E	D	L	L	I	T	R	E	D	A
L		T		H						D		H		P
O		R		O					N			K		E
A		M		S				O				R		V
V		I		E			C					T		O
E		L		K		E						S		S
R		L		I	S							K		H
A		I		T								T		P
G		M		X								X		U
E		Z		D		E	S	K	P	G	I	W	M	F
Z	T	D	K	H			O	D	O	M	E	T	E	R

IX. Answer briefly.

1. Define measurement.

The comparison of unknown quantities with some known quantities is known as measurement.

2. Define mass.

Mass is the measure of the amount of matter in an object. SI unit of mass is kilogram

3. The distance between two places is 43.65 km. Convert it into metre and cm.

$$1 \text{ km} = 1000 \text{ m}$$

$$43.65 \text{ km} = 43.65 \times 1000 = 43650 \text{ m}$$

$$1 \text{ m} = 100 \text{ cm} ; 1 \text{ km} = 100000 \text{ cm}$$

$$43.65 \text{ km} = 43.65 \times 100000 = 4365000 \text{ cm}$$

4. What are the rules to be followed to make accurate measurement with scale?

To avoid parallax error, reading will be correct.

Your eye must be exactly in front of vertically above the point where the measurement has to be taken.

X. Solve the following

1. The distance between your school and your house is 2250 m. Express this distance in kilometre.

$$1 \text{ km} = 1000 \text{ m} \quad , \quad 2250 \text{ m} = 2250 / 1000 = 2.25 \text{ km}$$

2. While measuring the length of a sharpened pencil, reading of the scale at one end is 2.0 cm and at the other end is 12.1 cm. What is the length of the pencil?

$$\begin{aligned} \text{The length of the pencil} &= \text{finishing end} - \text{starting end} \\ &= 12.1 - 2.0 \text{ cm} = 10.1 \text{ cm} \end{aligned}$$

XII. Write in detail

1. Explain two methods those you can use to measure the length of a curved line.

Measuring the length of a curved line Using a string

- Draw a curved line AB on a piece of paper.



- Place a String along the curved line.
- Make sure that the string covers every bit of the curved line.
- Mark the points where the curved line begins and ends on the string.

- Now, stretch the string along the length of a meter scale and measure the distance between the two markings of the string.

- Note it. This will give you the length of a curved line.

Measuring the length of a curved line using a divider.

- Draw a curved line AB on a piece of paper
- Separate the legs of the divider by 0.5 cm or 1 cm using a ruler.



- Place it on the curved line starting from one end. Mark the position of the other end.
- Move it along the line again and again cutting the line into number, of segments of equal lengths. The remaining-parts of the line can be measured using a scale.
- Count the number of segments

• Therefore, the length of the line = (number of segments \times length of each segment) + length of the left over part.

4. Fill up the following chart.

Property	Definition	Basic Unit	Instrument used for measuring
Length	The distance between two points	metre	Scale.tape
Mass	amount of matter in an object	kilogram	Beam balance
Volume	The space occupied by an object	Liquid-Litre, solid -metre ³	Graduated jars
Time	It is period between two events	second	clock

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2. Force and motion.

I. Choose the correct answer

1. Unit of speed is ____ a. m b. s c. kg **d. m/s**
2. Oscillatory motion among the following is
 - a. Rotation of the earth about its axis b. Revolution of the moon about the earth
 - c. To and fro movement of a vibrating string** d. All of these.
3. The correct relation among the following is
 - a. Speed = distance \times time** **b. Speed = distance / time.**
 - c. Speed = time / distance d. Speed = 1 / (distance \times time)
4. Gita rides with her father's bike to her uncle's house which is 40 km away from her home. She takes 40 minutes to reach there.
 Statement 1 : She travels with a speed of 1 km / minute.
 Statement 2 : She travels with a speed of 1 km/hour
 - a. Statement 1 alone is correct.** b. Statement 2 alone is correct.
 - c. Both statement 1 and 2 are correct. d. Neither statement 1 nor statement 2 is correct.

II. Find whether the following statements are true or false. if false give the correct answer






1. To and fro motion is called oscillatory motion. **[True]**
2. Vibratory motion and rotatory motion are periodic motions. **[True]**
3. Vehicles moving with varying speeds are said to be in uniform motion. **[False]**
4. Robots will replace human in future. **[False]**

III. Fill in the blanks

1. A bike moving on a straight road is an example of ____ motion. (**Linear**)
2. Gravitational force is a ____ force. (**non-contact**)
3. Motion of a potter's wheel is an example ____ of motion. (**Rotatory**)
4. When an object covers equal distances in equal interval of time, it is said to be in ____ motion. (**uniform**)

IV. Match the following

ANS:

- | | | |
|--------------------------------------------------------------------------------------|-------------------------------|----------------------------|
| 1.  | a. Circular motion | Linear motion |
| 2.  | b. Oscillatory motion | Rotatory motion |
| 3.  | c. Linear motion | Oscillatory motion |
| 4.  | d. Rotatory motion | Circular motion |
| 5.  | e. Linear and rotatory motion | Linear and rotatory motion |

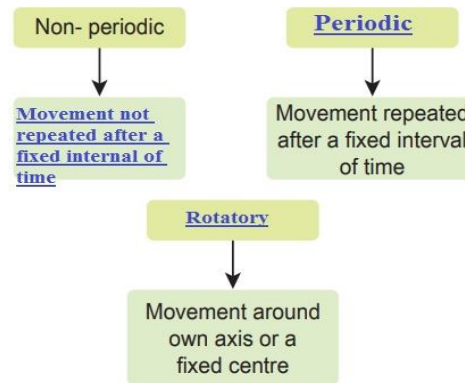
V. Analogy

- kicking a ball : contact force :: falling of leaf : ____? (**Non- contact force**)
- Distance : metre :: speed : ____? (**metre / sec**)
- circular motion :: a spinning top :: oscillatory motion : ____ ? (**To and fro motion of hand**).

VI Given below is the distance-trav-elled by an elephant across a forest with uniform speed. Com-plete the data of the table given below with the idea of uniform speed.

Distance (m)	0	4	<u>8</u>	12	<u>16</u>	20
Time (s)	0	2	4	<u>6</u>	8	10

VII Complete the web chart



VIII Answer in a word or two.

1. The force which acts on an object without Physical contact with it ____ (**Non- contact force**).
2. A change in the position of an object with time ____ (**Motion**).
3. The motion which repeats itself after a fixed interval of time ____ (**Periodic motion**).
4. The motion of an object travels equal distances in equal intervals of time ____ (**Oscillatory or Uniform motion**).
5. A machine capable of carrying out a complex series of actions automatically ____ (**Robot**).

IX Answer briefly.

1. Define force.
Forces are push or pull by an animate or inanimate agency
2. Name different types of motion based on the path.
Linear, Curvilinear, Circular, Rotatory, Oscillatory, Zigzag (irregular)
3. If you are sitting in a moving car, will you be at rest or motion with respect to your friend sitting next to you?
I am in rest with respect to my friend sitting inside the car.
4. Rotation of the earth is a periodic motion. Justify.
It is a periodic motion. Because, it takes equal interval of time for all rotations.

5. Differentiate between rotational and curvilinear motion

Rotational	Curvilinear
The movement of a body about its own axis., like a rotating top	moving ahead but changing direction, like a throwing ball.

X. Answer in detail:

1. What is motion? Classify different types of motion with examples.

When there is a change in the position of an object with respect to time, then it is called motion.

Different-types of motion:

Linear Motion	a person walking on a straight path,
Curvilinear Motion	like a throwing ball.
Circular Motion	swirling stone tied to the rope
Rotatory Motion	like a rotating top
Oscillatory Motion	like a pendulum.
Zigzag (irregular) Motion	people walking in a crowded street

XI. Calculate

1. A vehicle covers a distance of 400km in 5 hour. Calculate its average speed.

$$\text{Average speed (s)} = \frac{\text{distance travelled (d)}}{\text{time taken (t)}} = \frac{400 \text{ km}}{5 \text{ hour}} = 80 \frac{\text{km}}{\text{hour}}$$

XII. Give examples

Linear motion	walking on a straight path
Curvilinear motion	a throwing ball
Self rotatory motion	Motion of wheel in a cart
Circular motion	Analog clock
Oscillatory motion	pendulum
Irregular motion people	Flying mosquito

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3.Matter around us

I. Choose the correct answer

- _____ is not made of matter a. gold ring b. iron nail **c. light ray** d. oil drop
- 200ml of water is poured into a bowl of 400ml capacity. The volume of water now will be _____ a. 400 ml b. 600 ml **c. 200ml** d. 800ml
- Seeds from water-melon can be removed by _____ method.
a. hand-picking b. filtration c. magnetic separation d. decantation
- Lighter impurities like dust when mixed with rice or pulses can be removed by _____.
a. filtration b. sedimentation c. decantation **d. winnowing**
- _____ of _____ is essential to perform winnowing activity
a. Rain b. Soil c. Water **d. Air**
- Filtration method is effective in separating _____ mixture
a. solid-solid **b. solid-liquid** c. liquid-liquid d. liquid-gas
- Among the following _____ is not a mixture
a. Coffee with milk b. lemon juice **c. water** d. ice cream embedded with nuts.

II) Fill in the blanks

- Matter is made up of _____ (**extremely small particles**)
- In solids, the space between the particles is less than in _____ (**liquids and gases**)
- Grains can be separated from their stalks by _____ (**Winnowing**).
- Chillies are removed from 'upma' by _____ method. (**Hand-picking**)
- The method employed to separate clay particles from water is _____ (**Decantation**)
- Water obtained from tube wells is usually _____ Water. (**impure**)
- Which among the following _____ will get attracted to by magnet? : safety pins, pencil and rubber band, _____ (**safety pins**)

III. State whether the following statements are True or False. If false give the correct statement

- Air is not compressible **False** . **Ans:** highly compressible
- Liquids have no fixed volume but have fixed shape. **False** **Ans:** fixed, not fixed
- Particles in solids are free to move. **False** **Ans:** gases and liquids
- When pulses are washed with water before cooking, the water is separated from them by the process of filtration **Ans: True**
- Strainer is a kind of sieve which is used to separate a liquid from solid **Ans: True**
- Grain and husk can be separated by winnowing **Ans: True**

7. Air is a pure substance **False** **Ans** : mixture

8. Butter from curds is separated by sedimentation. **False** **Ans**: churning

IV. Complete the given analogy

1. Solid: rigidity : gas: _____. (**flexibility**)
2. Large Inter-particle space: gas: : _____ : solid (**tightly packed**)
3. Solid : Definite shape : : _____ : Shape of the vessel. (**Liquid**)
4. Husk-grains: winnowing:: Sawdust- Chalk piece: _____ (**Filtration**)
5. Murukku from hot oil : _____ : Coffee powder residue from decoction : _____
(**Filtration** , **Sedimentation**)
6. Iron sulphur mixture : _____ : Mustard seeds from Urad-dhal rolling (**Magnetic separation**)

V. Match the following

ans:

Property	Example
Breaks easily (brittle)	Metal pan
Bends readily	Rubber band
Can be stretched easily	Cotton wool
Gets compressed easily	Mud pot
Gets heated easily	Plastic wire

Property	Example
Breaks easily (brittle)	Mud pot
Bends readily	Plastic wire
Can be stretched easily	Rubber band
Gets compressed easily	Cotton wool
Gets heated easily	Metal pan

b)

	A	B	C
I.	Separation of visible undesirable components	Water mixed with chalk powder	Magnetic Separation
II.	Separation of heavier and lighter components	Sand and water	Decantation
III.	Separation of insoluble impurities	Iron impurities	Filtration
IV.	Separation of magnetic components from non- magnetic components	Rice and stone	Hand-picking
V.	Separation of solids from liquids	Husk and paddy	Winnowing

Ans:

	A	B	C
I.	Separation of visible undesirable components	Rice and stone	Hand-picking
II.	Separation of heavier and lighter components	Husk and paddy	Winnowing
III.	Separation of insoluble impurities	Water mixed with chalk powder	Filtration
IV.	Separation of magnetic components from non- magnetic components	Iron impurities	Magnetic Separation
V.	Separation of solids from liquids	Sand and water	Decantation

VI. Answer very briefly.

1. Define the term matter. **Matter is anything that has mass and occupies space.**

2. How can husk or fine dust particles be separated from rice before cooking?

Husk or fine dust particles be separated from rice before cooking by decantation. The water with the impurities is carefully poured away leaving clean rice at the bottom. This is called decantation.

3. Why do we separate mixtures?

We have to separate this mixtures to get useful things.

- ✓ To remove harmful components -- stones from rice
- ✓ To obtain the useful component -- Petrol from petroleum
- ✓ To obtain a substance in a highly pure form. -- Gold from gold mines.

4. Give an example for mixture and justify your answer with reason.

We mix rice, dal, salt, chillies, pepper, ghee and other ingredients to make pongal. Pongal is also an example for mixture. Because they are made of two or more ingredients or components that are physically separable.

5. Define Sedimentation.

Sedimentation : Settling down of suspended, insoluble and heavy solid particles (used to separate solid - liquid mixtures)

6. Give the main difference between a pure substance and an impure substance.

Pure substance	Impure substance
A pure substance is made up of only one kind of particles.	Mixture is a physical combination of two or more substances.
An element is made up of same kind of atoms.	Stones from rice.

VII. Short answer

1. A rubber ball changes its shape on pressing. Can it be called a solid?

Yes, it is solid filled with air. A solid has certain shape and size.

2. Why do gases not have fixed shape?

The particles in the gases are arranged far apart. They move freely. So gases do not have fixed shape.

3. What method will you employ to separate cheese (paneer) from milk? Explain.

Churning followed by coagulation- method to separate cheese.

They are six steps :- 1.acidification,2.coagulation,3.separating curd and whey,4.salting,5.shaping,6.ripening.

4. Look at the picture given below and explain the method of separation illustrated.

Sieving method is used to separate bran from flour.

Procedure



We sieve to remove bran from flour. Slowly pour the flour over the sieve, and shake the sieve. The flour which passes through the sieve is separated. Now bran from flour is separated.

5. How can you separate a mixture of a large quantity of tiny bits of paper mixed with pulses / dal?



Rice, wheat and other food grains are covered with husk which cannot be eaten by us. Husk is very light and gets easily blown away by a breeze or wind. The method used for removing husk from grain is called **winnowing**.

This is done by dropping the mixture slowly from a height in the presence of wind. Lighter solids i.e. husks will be carried by wind and will be collected in a separate heap while heavier solids i.e. grains will fall closer and form a separate heap.

6. What is meant by food adulteration?


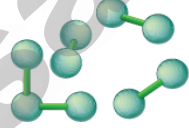

Things that we buy in the market are mixed with harmful and unwanted substances. This process is called adulteration.

7. Mr. Raghu returns home on a hot summer day and wants to have buttermilk. Mrs. Raghu has only curds. What can she do to get buttermilk? Explain

Take a small amount of curd in a container. mix water with curd in container and add pinch of salt. Churn water with curd. now the buttermilk is ready.

VIII. Answer in detail

Distinguish between properties of Solid, liquid, gas. Draw suitable diagram

Particles in a Solid	Particles in a Liquid	Particles in a Gas
In solid, the particles are tightly packed with very little space between them. Eg. Stone	Particles in liquids are arranged in a random or irregular way and the space between the particles is greater than that is in solids. Eg. Water	The particles in the gases are arranged far apart. They move freely. Eg. Air
		

Prepared by Subbiah palaniyandi

4.The living world of plants

I. Multiple Choice Questions

1. Pond is an example of _____
a) Marine **b) Freshwater** c) Deserts d) Mountain
2. The important function of stomata is _____
a) Conduction **b) Transpiration** c) Photosynthesis d) Absorption
3. Organs of absorption is _____
a) Root b) Stem c) Leaf d) Flower
4. The habitat of water hyacinth is _____
a) Aquatic b) Terrestrial c) Desert d) Mountain

II. Fill in the Blanks

1. Earth's surface is covered by ____ % of water .(**70**)
2. The driest places on earth are ____.(**desert**)
3. Fixation and absorption are the main functions of ____.(**root**)
4. Primary organs of photosynthesis are ____.(**leaves**)
5. Tap root system present in ____ plants.(**dicotyledonous**)

III. True or False – If False give the correct answer

1. Plants can live without water. [**False**] cannot
2. All plants have chlorophyll. [**False**] some have not chlorophyll.
3. Plants have three parts: the root, the stem and leaves. [**True**]
4. Mountain is an example for freshwater habitat. [**False**] terrestrial
5. Root is modified into spines. [**False**] leaves
6. Green plants need sunlight. [**True**]

IV. Match the following

1	Mountain	Monocot
2	Desert	Branches
3	Stem	Dry place
4	Photosynthesis	Himalayas
5	Fibrous Root	Leaves

Ans

1	Mountain	Himalayas
2	Desert	Dry place
3	Stem	Branches
4	Photosynthesis	Leaves
5	Fibrous Root	Monocot

:

V. Arrange in correct sequence

1. Leaf – Stem – Root – Flower **Root → Stem → Leaf → Flower**

2. Transpiration – Conduction - Absorption – Fixation

Fixation → Absorption → Conduction → Transpiration.

VI. Very short answer

1. Classify the plants on the basis of their habitat.

Terrestrial → 1.mountain, 2. grass lands. 3.deserts.

Aquatic → 1.Fresh, 2. Marine

2. Mention few desert plants.

Cactus, Agave, Aloe, Bryophyllum

3. Define the term habitat.

Each and every organism needs a place to live and reproduce. Such a dwelling place is called habitat..

3. Relate the terms leaves and photosynthesis.

The green leaves Prepare food by the process of photosynthesis.

VII. Short Answer

1. Why do you call jasmine plants, a twiner ?

Some plants have weak stems. They cannot stand straight on their own. They must climb on any support to survive. So jasmine plants are called as twiner.

2. Compare the tap root and fibrous root systems.

Tap root	Fibrous
It consists of a single long root grows straight down in the ground Example: Bean, Mango, Neem	Consists cluster of roots. All roots are thin and similar. Example: Grass, Paddy, Maize.

3. Distinguish between terrestrial and aquatic habitats.

Terrestrial	Aquatic
Terrestrial habitats are the ones that are found on land like forest, grassland and desert . It includes man-made habitats like farms, towns and cities. Example : Rubber , teak and Neem trees	Aquatic habitat includes areas that are occasionally covered by water. It includes man-made habitats like aquarium Ex: Lotus, Marine Algae, Sea grasses

4. List out the plants present in your school garden.

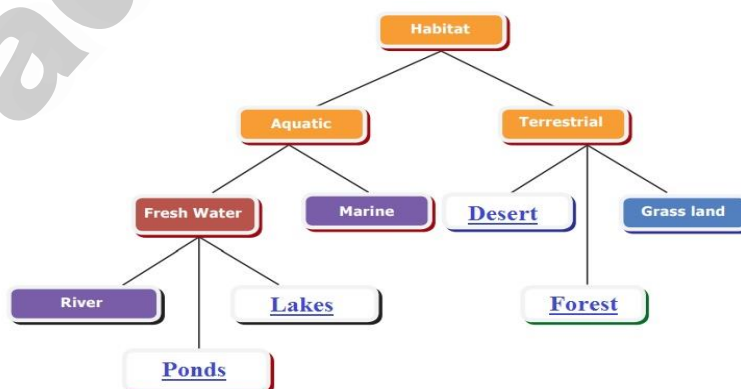
Neem ,coconut,Rose, Marigold,banana,banyan trees etc

VIII. Answer in detail

1. Make a list of the functions of root and stem.

root	stem
Root fix the plants to the soil. absorb water and minerals from the soil. Stores food as in the case of potato.	The stem, supports the branches, leaves, flowers and fruits Transports water and minerals from roots to upper aerial plant parts Stores food as in the case of sugarcane.

2. Study the given concept map. Connect them correcting by drawing arrow marks. Complete the map by filling in the blanks.



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5.THE LIVING WORLD OF ANIMALS

I. Choose the correct answers

1. The study of living things or organisms is called
 - a. Psychology
 - b. Biology**
 - c. Zoology
 - d. Botany
2. Which of the following are characteristics of living beings?
(i)Respiration (ii) Reproduction (iii) Adaptation (iv) Excretion
Choose the correct sequence
 - a. (i), (ii), and iv only
 - b. (i),(ii) only
 - c. (ii) and (iv)only
 - d. (i),(ii),(iii) and (iv)**
3. Lizards breathe through their
 - a. Skin
 - b. Gills
 - c. Lungs**
 - d. Trachea
4. All animals need
 - a. Food and water only
 - b. Water only
 - c. Air, food and water**
 - d. Food only
5. Which animal has the special organs of breathing called gills
 - a. Earthworm
 - b. Fox
 - c. Fish**
 - d. frog
6. Choose the set that represents only biotic components of a habitat
 - a. Tiger, Deer, Grass, Soil
 - b. Rocks, Soil, Plants, Air
 - c. Sand, Turtle, Crab, Rocks
 - d. Aquatic plant, Fish, Frog, Insects**
7. Which of the following cannot be called as a habitat?
 - a. A desert with camels
 - b. A pond with fish and snails
 - c. Cultivated land with grazing cattle**
 - d. A jungle with wild animals
8. Birds fly in the air with the help of
 - a. heavy and strong Bones
 - b. Soft and thick Bones
 - c. Hollow and light Bones**
 - d. Flat and thick Bones
9. Paramecium moves from one place to other with the help of
 - a. Pseudopodia
 - b. Flagella
 - c. Foot
 - d. Cilia**
10. Kangaroo rat lives in
 - a. Aquatic habitat
 - b. Desert habitat**
 - c. Grass land habitat
 - d. Mountain habitat

II. Fill in the blanks.

1. Water bodies,, deserts, mountains are called ____(**habitat**).
2. Based on the number of cells present animals are classified into ____ and ____
(**unicellular , multicellular**).
- 3 . Tail of a bird acts as a rudder which helps to ____ (**controls the movement**).
4. Amoeba moves with the help of ____ (**Pseudopodia**).

III. True or False, If False give the correct answer.

1. Habitat is a living or dwelling place of organism. **True**
2. The geographical features and environmental conditions on earth remain same from one place to other. **False** **ANS : Different**
3. Amoeba is a unicellular organism and moves with pseudopodia. **True**
4. Birds can see only one object at a time. **False** **ANS: two**
5. Paramecium is a multicellular organism. **False** **ANS: unicellular**

IV. Complete the following

1. Tropical rain forests, grasslands and desserts are known as ____(**habitat**).
2. Some living things are made of a single cell, they are called ____
organism.(**unicellular**)
3. The breathing organ of a fish is known as ____ .(**gills**)
4. The lizard ____ on the ground with its claw on its feet.(**moves**)
5. Camel stores ____ in its hump.(**fat**)

VI. Very short answer questions.

1. How do the birds catch their prey?

The aquatic birds catch their prey with help of beak and other birds are use sharp claws.

2. Where can we see Camels in India?

we see in north western part. eg., **Rajasthan**

3. Name the locomotory organ of an Amoeba.

Pseudopodia (false foot) is name of locomotory organ of an Amoeba.

4. What are the body parts of a snake? snake parts are **head, body and tail**.

5. Which structure helps the bird to change its direction while flying in air?

The **tail** helps the bird to change its direction while flying in air.

VI. Short answer type questions.

1. Differentiate between Unicellular and Multicellular organisms.

Unicellular	Multicellular
made up of single cell	made up of many cells.
can perform all the functions of life	Division of labour exists among cells
organisms are very small	are mostly large in size.
They lack tissues, organs and organ systems.	composed of tissues, organs and organ systems.
Growth occurs by increase size of the cell	Growth occurs by cell division
eg. Amoeba, Paramecium and Euglena	eg. Earthworms, Fish, Frogs, Lizard and human

2. Write the adaptive features of Polar bear and Penguin.

Sl.No.	Name of the Animal	Habitat	Adaptive features
1.	Polar Bear	Polar region	Thick skin for protection, white fur
2.	Penguin	Polar region	Paddle to swim, walk with two legs

3. Mention the feature that help a bird to fly is the air?

- They have streamlined body covered with feathers. This body shape provides minimum resistance to air.
- They have a pair of wings that are modified forelimbs.
- They have hollow and light bones.
- The tail of the bird helps it to control the direction of the movements.
- They have strong chest muscles which help them withstand the pressure of the air while flapping their wings during flight.

VII. Answer in detail

1. Describe the various features which help Camel dwell well in the desert.

Ship of the desert

1. The camel has long legs which help it to keep its body away from the hot sand in the desert.
2. A camel can drink large amount of water (when it is available) and store it in the body.
3. A camel's body is save water in the following ways:
 - (i) A Camel passes small amount of urine
 - (ii) Its dung is dry and it does not sweat.
4. A camel's hump has fat stored in it. In case of energy requirement a camel can break down stored fat for nourishment.
5. A camel has large and flat padded feet which help it to walk easily on soft sand. Thus it is called 'Ship of the desert'.
6. Camel has long eye lashes and hairs to protect its eyes and ears from the blowing dust.

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6. Health and Hygiene

I. Choose the correct answer

1. Our body needs ____ for muscle-building
a) carbohydrate b) fat **c) Protein** d) Water
2. Scurvy is caused due to the deficiency of _____.
a) Vitamin A b) Vitamin B **c) Vitamin C** d) Vitamin D
3. Calcium is an example of a
a) carbohydrate b) fat c) Protein **d) minerals**
4. We should include fruits and vegetables in our diet, because _____.
a) They are the best source of Carbohydrates
b) They are the best source of Proteins
c) They are rich in minerals and Vitamins d) They have high water content
5. Bacteria are very small _____ micro organism.
a) Prokaryotic b) Eukaryotic c) Protozoa d) Acellular

II. True or False

1. 6. There are three main nutrients present in food. **False** ans: **Six**
2. 7. Fats are used as an energy store by our body **True**
3. 8. All bacteria have flagella. **False** ans: **not have**
4. 9. Iron helps in the formation of haemoglobin. **True**
5. 10. Virus can grow and multiply outside host. **False** ans: **inside**

III Fill in the Blanks

1. Malnutrition leads to ____ (**Deficiency Diseases**)
2. Iodine deficiency leads to ____ in adults. (**Goitre**)
3. Vitamin D deficiency causes ____ (**Rickets**).
4. Typhoid is transmitted due to contamination of ____ and water. (**food**)
5. Influenza is a ____ disease. (**Viral**)

IV. Complete the Analogy

1. Rice: Carbohydrate : : Pulses: _____ (**Protein**)
2. Vitamin D : Rickets : : Vitamin C: _____ (**Scurvy**)
3. Iodine: Goitre : : Iron: _____ (**Anemia**)
4. Cholera: Bacteria : : Smallpox: _____ (**Virus.**)

V Match the Following

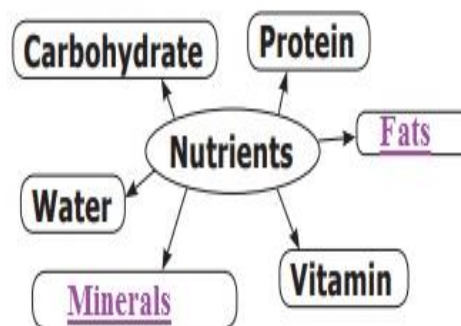
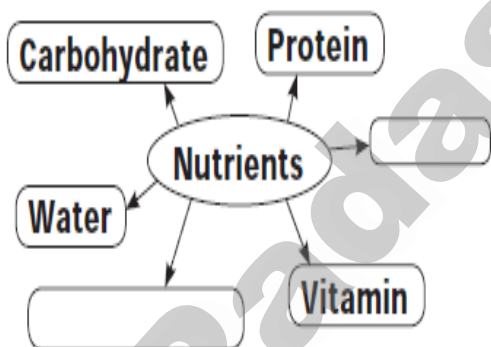
ANS:

Vitamin A	Rickets
Vitamin B	Night blindness
Vitamin C	Sterility
Vitamin D	Beri beri
Vitamin E	Scurvy

Vitamin A	Night blindness
Vitamin B	Beriberi
Vitamin C	Scurvy
Vitamin D	Rickets
Vitamin E	Sterility

VI. Complete the Diagram

ANS



VII. Write Short Answer

1. Write two examples for each of the following .

a. Food items rich in fat.

Butter, ghee, milk, cheese, paneer, nuts, meat, fish, egg yolk etc

b. Vitamin deficiency diseases.

Night blindness, Beriberi, Rickets, Nervous weakness, bones Weakness, teeth etc.

2. Differentiate between carbohydrate and protein

Carbohydrate	Protein
Carbohydrates are energy giving component of the food	Proteins are body building foods
We can obtain carbohydrates in the form of Sugar, starch and dietary fibres	The sources of proteins are pulses, eggs, fish, milk, chicken, soya bean, nut, grams etc

3. Define the term “ Balanced diet”.

A diet should contain adequate amount of all the necessary nutrients required for healthy growth and activity.

- It increases the capacity to work.
- It gives good physical and mental health.
- It increases the capacity to resist diseases.
- It helps in proper growth of the body.

4. Why should the fruits and vegetables not to be washed after cutting?

Because the nutrients (minerals and protein) present in it are lost out through water.

5. Mention any two viral diseases

Common cold , Influenza, Hepatitis, Polio, Smallpox, Chicken pox, Measles

6. What is the main feature of a microorganism?

A microorganism can be seen with the help of a microscope. They are very small, Eg., Bacteria, Virus, Protozoa, Fungi

VIII. Answer in details

1. Tabulate the vitamins and their corresponding deficiency diseases.

Vitamin	Sources	Disease deficiency
Vitamin A	Fish oil, Egg, Milk, Ghee, Carrot, Corn, Yellow fruits, Greens	Night blindness
Vitamin B	Whole grain, Unpolished rice, Milk, Fish, Meat, Peas, Lentils Green vegetables	Beriberi
Vitamin C	Oranges, Gooseberry, Green chilly, Tomato	Scurvy
Vitamin D	Fish oil, milk and eggs. It is also produced by our skin using sunlight	Rickets
Vitamin E	Vegetable oils, Green vegetables, Whole wheat, Mango, Apple, Greens	Nerve weakness, Vision deterioration
Vitamin K	Green vegetables, Tomato, Cabbage, Eggs, Milk products.	Weakness of the bones, teeth etc.

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7.COMPUTER AN INTRODUCTION

I. Choose the Correct answer:

1. Who is the father of computer?
a. Martin Luther King, b. Graham Bell, c. Charlie Chaplin, **d. Charles Babbage**
2. Which of the following is another form of computer?
a. Blackboard **b. Mobile** c. Radio d. Book
3. When was the first computer introduced?
a. 1980 b. 1947 **c. 1946** d. 1985
4. Who is the computer's first programmer?
a. Lady Wellington **b. Augusta ado Lovelace** c. Mary Curie d. Mary Comb
5. Pick out the odd one.
a. Calculator b. Abacus **c. Flash card** d. Laptop

II. Fill in the blanks:

1. Data is ____ information.(unprocessed)
2. World's first general purpose computer is ____ (abacus)
3. Information is ____ data.(processed)
4. Fifth generation computer has ____ intelligence(Artificial)
5. _____ is the device that uses Index number.(Analog Computer)

III. State True or False:

1. Computer is an Electronic device. **True**
2. Sir Isaac Newton invented Computer. **False** ans: **Charles Babbage**
3. Computer can do calculations fast. **True**

IV. Match the following:

First generation Computer	Artificial Intelligence
Second generation Computer	Integrated Circuit
Third generation Computer	Vacuum tubes
Fourth generation Computer	Transistor
Fifth generation computer	Micro processor

Answer:

First generation Computer	Vacuum tubes
Second generation Computer	Transistor
Third generation Computer	Integrated Circuit
Fourth generation Computer	Micro processor
Fifth generation computer	Artificial Intelligence

V. Answer the following:**1. What is a Computer?**

Computer is an electronic device that process the data and Information according to our needs. We can save the data and convert it into information.

2. Who are the pioneers/ forerunners of computer?

Charles Babbage, and, Augusta Ada Lovelace are the pioneers/forerunners of computer.

3. Write a short note on Data.

Data is the information that has to be processed. It cannot be used directly by us. Generally, they are in the form of numbers, alphabet and images.

4. Name any four input devices.

The keyboard, mouse, mic and scanner are some of the input devices.

5. Differentiate Hardware and Software.

Hardware	Software
Parts of the computer are called hardware. You can touch, see and feel. If hardware is damaged, it is replaced with new one	A set of instructions given to the computer is called software. You cannot touch and feel software..Software is affected by computer viruses

VI. Answer in detail:

1. Explain in detail the Applications of computer.

- Communication is a way to convey a message, an idea. E-mail, Chatting
- Computers have become an important part in hospitals, labs, and dispensaries.
- It is used railway stations ISSUING TICKETS.
- It is also used in post offices , banks and ATMS

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