

Winneens

6th Science 2nd Term Notes Questions

New Book



General Science	Prepared By <u>www.winmeen.com</u>				
6th Science	e 2nd Term Notes Questions – [New Book]				
	1. Heat				
1. Choose the appropriate answer:					
1. We reduce the heat by adding	while preparing fruit juice.				
a) sugar	b) lime				
c) ice cubes	d) salt				
2. One day in 1922, the air tempera	ature was measured at 59°C in the shade in Libya				
a) America	b) Africa				
c) Antarctica	d) Europe				
3.Our normal body temperature is					
a) 34 °C	b) 36 °C				
c) 35 °C	d) 37 °C				
4. The temperature determines the	direction flow of				
a) heat energy	b) kinetic energy				
c) potential energy	d) light energy				
5 exists when two obj	jects in thermal contact no longer affect each other's temperature.				
a) thermal expansion	b) thermal equilibrium				
c) average temperature	d) coolness				
2. Fill in the blanks:					
1. We feel heat on our body when	1. We feel heat on our body when the <u>sun</u> shines.				
2. <u>Heat</u> energy can be generated by	y the burning of fuels like coal, wood, charcoal, gasoline etc.				
 When <u>Electric current</u> flows through a conductor, heat energy is produced. <u>Heat</u> is a form of energy. <u>Temperature</u> determines the direction of flow of heat. 					
				6. The coldest temperature in the w	vorld was measured in the Antarctic continent.
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7. Temperature measures the average kinetic energy of molecules.

3. True or False, If false, give the correct statement.

1. The sun five us light and heat.

Ans: True

2. We can absorb heat by rubbing two surfaces of some substances.

Ans: False. We can generate heat by rubbing two surfaces of some substances.

3. In the past people used to rub two wooden pieces together to light fire.

Ans: False. In the past people used to rub two stones together to light fire.

4. When we cool the object the temperature of the object will be increased.

Ans: False. When we heat the object the temperature of the object will be increased.

5. Two objects are said to be in thermal contact if they can exchange heat energy.

Ans: True

6. The expansion in volume is called linear expansion.

Ans: False The expansion in length is called linear expansion.

4. Match the following:

1. Source of heat	-	a) Heat energy
2. Electric current	-	b) Calorie
3. Gasoline		c) 37°C
4. Unit of heat	-	d) Electric kettle
5. Human body temperature	-	e) Sun

Ans: 1-e; 2-d; 3-a; 4-b; 5-c

5. Analogy:

1. Movement of molecules : Heat :: Heat energy: <u>Calorie</u>

2. Expansion is length: Linear expansion :: Expansion in volume: cubical expansion

3. Ordinary glass: Glass tumbler :: Pyrex glass: Laboratory glassware.

6. Short Questions & answer:

I. How can heat energy be generated?

Heat energy can be generated by the burning of fuels like wood, Kerosene, Coal, charcoal, gasoline/petrol, oil etc.

2. Define - heat.

Heat is an energy that raises the temperature of a thing by causing the molecules in that thing to move faster.

3. What are the units of heat used?

SI unit of heat is Joule. The unit caloric is also used.

4. What is the measuring unit of temperature?

SI unit of temperature is Kelvin. Celsius and Fahrenheit are the other units used.

5. Define – Calorie.

The amount of heat needed to raise one gram of water by one degree centigrade .

6. What is thermal expansion?

The expansion of a substance on heating is called the thermal expansion of that substance.

7. Differentiate linear expansion and cubical expansion.

Sl.no	Linear Expansion	Cubical Expansion
1	The expansion is in length.	The expansion is in volume.
2	Ex. Expansion of railway track rod.	Ex. Expansion of metal ball.

8. How solids are expanded on heating?

The molecules in the substance move faster when heating spread apart and occupy more space. So substance expand when heated.

9. How heat energy is transferred?

Heat energy flows from higher temperature to lower temperature.

10. What type of glassware is used in laboratories? Why?

Pyrex glass Is used in laboratory because Pyrex glass (Borosilicate glass) do not expand must on being heated and therefore they do not crack

11. List and describe the sources of heat.

i) Sun: It is the primary source of light and it gives us light and heat.

ii) Combustion: Heat energy can be generated by the burning of fuels like wood, kerosene, coat, charcoal, petrol etc.

iii) Friction: We can generate heat by rubbing two surfaces of some substances. In the past people used to rub two stones together to light fire.

iv) Electricity: when Electric current flows through a conductor, heat energy is produced. Eg. Iron box, Electric kettle.

2. Electricity

1. Choose the appropriate answer:

1.	One of the atomic power s	tations is located in			
	a) Mettur	b) Papanasam			
	c) Neyveli	d) Kalpakkam			
2.	In atomic power station	is used to rotate the turbine.			
	a) water	b) steam			
	c) air	d) diesel			
3.	3. Secondary cells are used in				
	a) Mobile phone	b) wall clocks			
	c) watches	d) toys			
4.	if two or more	are connected in series in a circuit, then it is called series circuit.			
	a) keys	b) cells			
	c) connecting wires	d) bulbs			
5.	is an instrument u circuit.	used in electric circuits to find the quantity of current flowing through the			
	N				

b) ammeter a) volt meter

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- c) cell d) key
- 6. Thomas Alva Edison invented more than _____ useful inventions which are used in homes.
 - a) 100 b) 10
 - c) 500 d) 1000

2. Fill in the blanks:

- 1. Hydel electricity is produced in **<u>Papanasam</u>** in Tirunelveli district.
- 2. In Thermal power station **Coal or diesel** is used as fuel.
- 3. <u>Secondary</u> cells used in automobiles like cars and buses are large and very heavy.
- 4. The rate of flow of electric charges in a circuit is called **Electric currnet**.
- 5. <u>Electric Eel</u> is a kind of fish which is able to produce electric current.
- 6. Connecting wires are used to connect devices.
- 7. Thomas Alva Edison was an American inventor, who invented electric bulb.

3. Find whether the following sentences are True or False, If false, correct the statement.

1. Wind mills are located at Neyveli in Klanyakumari district.

Ans: False. Wind mills are located at Avalvamozhi in Kanyakumari district.

2.In atomic power station nuclear energy is converted into electrical energy.

Ans: True

3. Primary cells are usually produced in large sizes.

Ans: False. Primary cells are usually produced in small sizes.

4. Primary cells are used in mobile phones.

Ans: False. Secondary cells are used in mobile phones.

5. In a circuit if the key is in open (off) condition, the electricity will not flow.

Ans: True

6. Ebonite do not allow electric charges to pass through them.

Ans: True

4. Analogy:

- 1. Thermal power station : Neyveli :: Hydel power station : Mettur
- 2. Kayatharu in Tirunelveli district : Wind mills :: Koodankulam in Tirunelveli district : <u>Atomic power</u> <u>station</u>
- 3. Primary cells : Toys :: Secondary cells : **Emergency lamp**
- 4. Bulbs are connected in series : Series circuit :: Bulbs are connected in parallel : Parallel circuit.

5. Match the following:

1. Thermal power station	-	a) Kinetic energy converted into electrical energy.
2. Hydel power station then electrical energy.	-	b) Nuclear energy is converted into mechanical energy and
3. Atomic power station	-	c) Wind energy is used to produce electricity.
4. Wind mills	-	d) Heat energy is converted into electrical energy.
Ans: 1-d; 2-a; 3-b; 4-c		
1. Source of electricity	-	a) conductors
2. To connect devices	- 7	b) bulb
3. Consumes electricity	-	c) insulators
4. Allow electric charges	-	d) connecting wires
5. Do not allow electric charges		e) cell
Ans: 1-e; 2-d; 3-b; 4-a; 5-c		

6. Short Questions & answer:

I. What are the places in which atomic power stations are located in Tamil Nadu?

- i) Kalpakkam, Kanchipuram district.
- ii) Koodankulam, Tirunelveli district.

2. Where are the Hydel power stations located in Tamil Nadu?

- i) Mettur in Salem District.
- ii) Papanasam in Tirunelveli District.

3. Where are wind mills located in Tamil Nadu?

- i) Aralvaimozhi in Kanyakumari District.
- ii) Kayatharu in Tirunelveli District.

4. How electric current is produced in Thermal power staions?

The thermal energy generated by burning coal is used to produce steam. The steam thus produced is used to rotate turbine. While the turbine rotates, the coil of wire kept between the electromagnetic rotates. Due to electromagnetic induction electricity is produced.

5. What are the types of cells? Give example.

i) Primary cells ii) Secondary cells.

Primary cells: Cells used in clocks, watches and toys etc.

Secondary cells: Cells used in mobile phones, laptops and emergency lamps.

6. What is meant by a battery or collection of cells?

Two or more cells are combined together to make a battery or collection of cells.

7. Differentiate Primary and Secondary cells

Sl.no	Primary cells	Secondary cells
1	They cannot be recharged.	They can be recharged.
2	They can be used only once.	They can be used again and again.
3.	Usually produced in small size.	The size can be small or even large.

8. Define simple circuit.

A circuit consisting of a cell, key, bulb and connecting wires is called a simple circuit.

9. What is electric circuit?

An electric circuit is the continuous or unbroken closed path along which electric circuit flows from the positive terminal to the negative terminal of the battery.

10. Give the types of circuits.

They are three types of circuits.

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i) Single circuit

ii) Series circuit

iii) Parallel circuit

11. Why parallel circuits are used in homes?

Parallel circuits are used in homes, because if any one of the bulb is damaged or disconnected, the other part of the circuit will work.

12. Identify the conductors and insulators among the following?

Copper, plastic, glass, iron, wood, aluminum, china clay, impure water, earth, ebonite

Sl.no	Conductors	Insulators
1	Copper	Plastic
2	Iron	Glass
3	Aluminum	Wood
4	Impure water	China clay
5	Earth	Ebonite

13. Describe open circuit and closed circuits.

i) **Open Circuit**: In a circuit if the key is in open (off) condition, then electricity will not flow and the circuit is called an open circuit. The bulb will not glow in this circuit.

ii) **Closed circuit**: In this circuit if the key is in closed (on) condition, then electricity will flow and the circuit is called a closed circuit. The bulb will glow in this circuit.

14. Describe series circuit and parallel circuit.

i) Series circuit: If two or more bulbs are connected in series in a circuit, then that type of circuit is called series circuit. If any one of the bulb is damaged or disconnected, the entire circuit will not work.

ii) **Parallel circuit:** If two or more bulbs are connected in parallel in a circuit, then that type of circuit is called parallel circuit. If any one of the bulb is damaged or disconnected, the other part of the circuit will work. So parallel circuits are used in homes.

15. What are the safety measures to safeguard a person from electric shock?

Safety measures to safeguard a person from electric shock:

- i) Switch off the power supply.
- ii) Remove the connection from the switch/
- iii) Push him away using non-conducing materials.

iv) Give him first aid and take him to the nearest health centre.

3. Changes Around Us

1. Choose the appropriate answer:

	1. Growth of seed into sapling is change.			
		a) slow	b) chemical	
		c) reversible	d) undesirable	
	2.	is the process s	sin which something between different from what it was earlier.	
		a) classification	b) composition	
		c) position	d) change	
	3.	Which of the following is	not a man-made change?	
		a) burning of fuels	b) drying of clothes	
		c) tearing of paper	d) change of day and night	
	4.	change is a temp	porary change.	
		a) physical	b) chemical	
		c) undesirable	d) slow	
	5.	Raining is achang	ge.	
		a) human made	b) undesirable	
		c) slow	d) natural	
2. F	Fill	in the blanks:		

- 1. <u>Fast</u> changes which take place within a short period of time. (Fast/Slow)
- 2. When 'touch me not' plant is touched by us, <u>reversible</u> changes occur. (Reversible/ irreversible)
- 3. Tearing of sheet of paper into pieces is **physical** change. (Physical/chemical)
- 4. By the process of Heating of water, steam is obtained. (ice/steam)
- 5. <u>Solute</u> is the substance that is dissolved in solvent. (Solute/Solvent)
- 6. The changes in which new substance with new chemical properties are formed are <u>chemical</u> changes. (Physical/Chemical)

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7. Deforestation is Human made change. (Natural/Human made)

3. Find whether the following sentences are True or False, If false, give the correct statement.

1. The difference between initial state and the final state is called change.

Ans: True

2. Gas exists in three states as solid, liquid and gas.

Ans: False. Water exists in three states as solid, liquid and gas.

3. Water into steam on heating is called freezing.

Ans: False. Water into steam on heating is called vaporization.

4. When solute is dissolved in solvent it forms a solution.

Ans: True.

5. Chemical change is a temporary change.

Ans: False. Chemical change is a permanent change (or) Physical change is a temporary change.

6. Natural changes which take place in nature on their own, are beyond the control of human being.

Ans: True

7. Construction of building is a Natural change.

Ans: False. Construction of building is a human made change.

4. Analogy:

- 1. Germination of seed : slow change :: Breaking of glass : fast change
- 2. Irreversible change: making idly form batter :: Reversible change : Stretching of rubber band.
- 3. Melting of ice: Physical change :: Popping of popcorn : chemical change
- 4. Melting : ice into water on heating :: freezing : water into ice on cooling.
- 5. Changing of phases of the moon : natural change :: Cultivation of paddy : <u>Human made change</u>.

5. Match the following:

- 1. Lightning a) Physical change
- 2. Touch me not plant leaves showing b) Camphor

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- 3. Sugar dissolving
- 4. Sublimation
- 5. Universal solvent

d) Reversible change

c) Water

e) Fast change

Ans: 1-e; 2-d; 3-a; 4-b; 5-c

6. Short Questions & answer:

1. What is change?

Change is the observable difference between initial state and the final state of any substance.

2. What is reversible change? Give example.

Changes which can be reversed, to get back the original state, are known as reversible changes. Eg. Melting of ice, stretching of rubberband.

3. What is melting? Give example.

The conversion of solid into liquid by heating is called melting. Eg. ice into water.

4. What is freezing? Give example.

The conversion of liquid into solid by cooling is called freezing. Ex. Water into ice cubes.

5. Define sublimation.

The change of state from solid to gas directly is called sublimation.

6. Water is known as universal solvent why?

Water dissolves a wide range of substances. So it is called as universal solvent.

7. What is the meaning of natural changes? Give example.

Changes which take place in nature on their own and are beyond the control of human beings are known as natural changes. Ex. Rotation of earth, Raining.

8. What are artificial changes? Give example.

The changes which are brought about by human beings are known as human made or artificial changes. Ex. Construction of bridges, road construction, cooking.

9. Tabulate the difference between physical and chemical changes.

Sl.no	Physical changes	Chemical changes

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1	No new substance formed	New substance formed.
2	No change in the chemical composition.	There is change in the chemical composition.
3	It is a temporary change.	It is a permanent change.
4.	It is reversible	It is irreversible
5	Ex. Melting of ice, dissolving of salt, tearing of paper.	Ex. Rusting of iron, burring of wood, paper.

4. Air

1. Choose the appropriate answer:

1.	Movement	of wind	takes	place	in	layer
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a) Troposphere b) Ozone

c) Stratosphere d) Ionosphere

2. _____ is responsible for making clouds.

a) hydrogen b) oxygen

- c) water vapour d) carbon dioxide
- 3. layer contain ozone layer.
 - a) Troposphere b) Stratosphere
 - c) Mesosphere d) Exosphere

4. ______was able to identify highly reactive gas called oxygen.

- a) Lavoisier b) Ingenhousz
- c) Rutherford d) Joseph Priestley

5. During respiration carbon dioxide is exhaled out of the body through the _____

a) lungs b) heart

c) kidney d) skin

6. _____ respires using their skin.

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- a) fish **b) frogs**
- c) rats d) human beings.

7. _____ gas cylinders are used for breathing purpose for a diver going deep into the sea.

- a) hydrogen b) carbon dioxide
- c) oxygen d) nitrogen

2. Fill in the blanks:

- 1. Atmosphere is held in place by the earth's **gravity**.
- 2. The atmosphere is made of <u>five</u> different layers.
- 3. A <u>weathercock</u> shows the direction in which the air is moving at a particular place.
- 4. The ozone layer protects all life on earth from the harmful <u>ultraviolet rays</u> of the sun.
- 5. Highly reactive gas was later name 'oxygen' by Lavoisier.
- 6. **Daniel Rutherford** discovered nitrogen.
- 7. Air contains small amount of CO₂, water vapour and some other gases like argon, helium.
- 8. Air contains more **water vapour** in rainy season.

3. Find whether the following sentences are True or False, If false, give the correct statement.

1. When air is moving with cool and soothing, it is called as cyclone.

Ans: False. When air is moving with cool and soothing is called as breeze.

2. Exosphere has high temperature.

Ans: False. Exosphere has low temperature

3. Jan Ingenhousz showed that chlorophyII is essential to the plant to carry out photosynthesis.

Ans: False. Jan Ingenhousz showed that sunlight is essential to the plant to carry out photosynthesis.

4. The second major component of air is oxygen,

Ans: True

5. Air also contains small amount of carbon dioxide, water vapour and some other gases like argon, helium etc.

Ans: True

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6. The amount of water vapour in the air is more in windy places than other areas.

Ans: False. The amount of dust in the air is more in windy place than other areas.

4. Match the following:

1. More industrial cities	-	a) dust particles
2. Coastal areas	-	b) humidity
3. Rainy season	-	c) carbon dioxide
4. Windy places	-	d) water vapour

Ans: 1-c; 2-d; 3-b; 4-a

5. Analogy:

- 1. Cool and soothing wind : breeze :: Uproot trees wind : <u>Cyclone</u>
- 2. Weather changes: Troposphere :: ozone layer : Stratosphere
- 3.Oxygen : Joseph Priestley :: Nitrogen: Daniel Rutherford
- 4. Respire through skin: **Frogs** :: Respire through gills : fish

6. Short Questions & answer:

1. Define – Atmosphere.

Our earth is surrounded by a huge envelope of air. It is called atmosphere.

2. The air envelope is thicker near the earth's surface and we go higher the density and availability of air gradually decreases. Why?

When altitude increases, number fo gas molecules will be decreased. Therefore the density is also decreased when we go higher. Gravity pulls most of the atmospheres gas molecules close to the earth's surface. Air rises as it is heated because if becomes less dense.

3. Define troposphere.

- i) This layer is closest to the earth.
- ii) It is the layer in which we live.
- iii) Movement of wind takes place in this layer.
- iv) It also contains water vapour, which is responsible for making clouds.
- v) It is responsible for the weather we experience on earth.

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4. Why aircraft usually fly above the troposphere layer?

Aircrafts usually fly above the troposphere to avoid strong winds and bad weather.

5. How to show that the presence of carbon dioxide in air?

Pour some lime water in a glass tumbler, bubble some air using a straw through the lime water. After a few minutes, lime water will produce a white precipitate and that the lime water will turn to a milky white solution. This shows the presence of carbon dioxide in air.

6. Write the composition of air.

The major composition of air is nitrogen. Almost four – fifth of air is nitrogen. The second major component of air is oxygen. Air also contains small amout of carbon dioxide, water vapour and some other gases like argon, helium etc. the air may also contain some dust particles.

7. The composition of air changes slightly from place to place. Give example.

i) Air over industrial cites has a higher amount of carbon dioxide in it.

ii) Air in coastal areas may have more water vapour than inland areas.

iii) Air also contains more water vapour in rainy season.

iv) The amount of dust in the air is more in windy places.

8. What is meant by burning?

The process of burning of a substance in the presence of oxygen and releasing a large amount of light and heat is called burning.

9. In Rockets, along with fuel. Oxygen is also carried for combustion. Why?

In Rockets, as they go high in the atmosphere the availability of oxygen is considerably reduced. So rockets along with the fuel. oxygen is also carried for combustion.

10. Write the equation of photosynthesis.

Carbon dioxide + water $\frac{\text{Sunlight}}{\text{ChlorophyII}}$ Food + Oxygen

11. What is dry ice? What is its use?

i) When carbon dioxide is cooled to -57°C, it directly becomes a solid, without changing to its liquid state. It is called dry ice.

ii) Dry ice is used in trucks or freight cars for refrigerating meat and fish while transporting them.

12. Write the uses of wind mills.

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The wind mills are used

i) to draw water by running pumps.

ii) run flour mills.

iii) to generate electricity.

13. Give the components present in the air with percentage?

The components present in the air with percentage Nitrogen -78%, Oxygen -21%, Carbon dioxide, Argon, Water vapour and other gases -1%.

5. The Cell

1. Choose the correct answer:

- 1. Which one is prokaryotic cell among the following?
 - a) Plant cell b) animal cell
 - c) nerve cell d) cyano bacteria cell
- 2. Robert Hooke published a book named _____ in the year 1665.
 - a) Cellula **b) Micro graphia**
 - c) Cell biology d) Organelles
- 3. A typical cell consists of _____ major parts.
 - a) two b) four
 - c) three d) five
- 4. The largest cell is the egg of an _____ with 170 millimeter width.
 - a) Ostrich b) Viper
 - c) tortoise d) Hen
- 5. Approximate number of cells in the human body is _____
 - a) **3.7** x 10^{13} b) 3.7 x 10^{12}
 - c) $3.7 \ge 10^{14}$ d) $3.7 \ge 10^{15}$
- 6. Prokaryotic cell type of nucleus is called as _____
 - a) nucleolus b) nuclear membrane

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c) organelles d) nucleiod

2. Fill in the blanks:

- 1. <u>Cell</u> is the basic structural and functional unit of every living organism.
- 2. Now a days an <u>electron</u> microscope is used to magnify the cells.
- 3. In Latin the word 'cellula' means a <u>small chamber</u>.
- 4. The branch of science that deals with the study of cells is called <u>cell biology</u>.
- 5. The outer covering part of cell is called <u>cell membrane</u>.
- 6. <u>Prokaryotic</u> cells were the first form of life on earth.
- 7. <u>Chloro plast</u> is present in plant cell only.
- 8. Plants prepare food with the help of **ChlorophyII.**

3. Find whether the following sentences are true or false. If false, correct the statement:

- The cell is self-sufficient to carry out all the fundamental and essential functions of an organism.
 Ans: True
- 2. Robert Hooke saw many objects like Butterfly's compound eyes, Bee's wings etc.

Ans: False. Robert Hooke saw many objects like Butterfly's wings, Bees Compound eyes etc.

3. All the cells can be seen with our naked eye.

Ans: False. All the cells cannot be seen with our naked eye.

4. The size of the bacterial cell ranges from 0.01 micro meter to 0.5 micrometer.

Ans: True

5. Spirogyra and Human beings are unicellular.

Ans: False. Spirogyra and Human beings are multicellular

4. Match the following:

- 1. Discovery of cell a) Nerve cell
- 2. Unicellular organism b) Spirogyra
- 3. Multicellular organism c) Robert Hooke

- 4. Longest cell d) Cyano bacteria
- 5. Prokaryotic cell e) Amoeba

Ans: 1- c; 2-e; 3-b; 4-a; 5-d

5. Analogy

- 1. Smallest cell : Virus :: Biggest cell : Ostrich egg
- 2. Unicellular organism : Chlamydomonas :: Multi cellular organism : Human beings

3.No true nucleus : prokaryotic cell :: True nucleus: Eukaryotic cell

4.Plant cell : Chloroplast :: Animal cell : Centrioles

6. Short Questions & answer:

1. Give two examples of prokaryotic cell?

Cyano bacteria and Eschericia coli bacteria are the examples of prokaryotic cell.

2. What are the two types of cell?

Cells are classified into two types. First one is Prokaryotic cell. It has no true nucleus. Another one is Eukaryotic cell. It has true nucleus.

3. Define: Prokaryotic cells.

- i) It has no true nucleus.
- ii) This type of nucleus is called as nucleiod.
- iii) No nuclear membrane is around the nucleiod.
- iv) It is ranging from 0.003 to 2.0 micro meter in diameter.

4. Write about chloroplasts.

- i) It is found in plant cell only.
- ii) it contains green pigment chlorophyII.
- iii) It captures the energy of sunlight and uses it to produce food for the cell by photosynthesis.
- iv) it is called a producers for the cell.

5. What are the functions of nucleus.

i) it acts as brain of the cell.

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ii) it regulates and controls all the cell activities.

6. Cell wall is called as supporter or protector. Why?

- i) it surrounds and protects the cell.
- ii) it makes the cell stiff and strong.
- iii) it is called as supporter or protector.

6. Human Organ System

1. Chose the correct answer:

- 1. A group of organs that work together to perform a particular function is known as
 - a) Skeletal system b) Muscular system
 - c) Nervous system d) Organ system

2. _____ connect bone to muscle.

- a) skeleton b) tendons
- c) cartilages d) ligaments

3. bone is the largest and strongest bone in the human face.

- a) nasal b) temporal
- c) lower jaw

d) parietal

- 4. _____ muscles are found in the walls of the digestive tract, urinary bladder arteries and other internal organs.
 - a) bone

b) smooth

c) cardiac d) triceps

5._____is a major organ for digestion of food materials.

- a) heart b) esophagus
- c) stomach d) kidney

6. The ______ is a complex organ which is placed inside the cranium.

- a) kidney b) heart
- c) lungs d) brain

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- 7. Skin helps us to synthesize _____ using sun light.
 - a) Vitamin A b) Vitamin B
 - c) Vitamin C d) Vitamin D
- 8. _____ gland is located in the neck region.

a) pituitary	b) thyroid
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- c) adrenal d) thymus
- 9. Pituitary gland is located at _____ in our body.
 - a) neck region b) base of brain
 - c) abdomen region d) above the kidney
- 10. The functional units of the kidney are called _
- a) nephrons b) neuron
- c) bladder d) urethra

2. Fill in the blansk:

- 1. The adult human skeletal system consists of **206** bones.
- 2. Ligaments help in connecting bone to bone.
- 3. Vertebral column is formed by a number of serially arranged small bones called vertebrae.
- 4. The rib cage is made up of <u>12 pairs</u> of curved flat rib bones.
- 5. The digestive gland associated with alimentary is called salivary gland.
- 6. Lungs are located within the chest cavity.
- 7. The lungs are covered by a double layered **<u>pleura</u>**.
- 8. the heart is **four** chambered.
- 9. the heart is surrounded by a double layered membrane called pericardium.
- 10. <u>Red blood carpuscles</u> are produces in the bone marrow.
- 11. Nervous system is well developed in human and is composed of neurons or nerve cells.
- 12. **Brain** is the controlling centre of the body.

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- 13. The outer ear in human beings is made up of an external flap called **pinna**
- 14. <u>Adrenal</u> gland is located above the kidney.
- 15. Our body contains <u>70%</u> of water.
- 16. ur stomach consists of Hydro choloric acid.

3. Find whether the following sentences are true or false. If false, correct the statements.

1. The nervous system consists of bones, cartilages and joints.

Ans: False. The Skeletal system consists of bones, cartilages and joints.

2. Lower jaw bone is the smallest and strongest bone in the human face.

Ans: False. Lower jaw bone is the largest and strongest bone in the human face.

3. The smallest bone in our body is stapes.

Ans: True

4. Intake of oxygen from the air and releasing of carbon dioxide from the lungs occur through nostrils is called internal respiration.

Ans: False. Intake of oxygen from the air and releasing of carbon dioxide from the lungs occur through nostrils is called **external** respiration.

5. The walls of the heart is made up of cardiac muscle.

Ans: True

6. Blood is a fluid connective tissue.

Ans: True

7. Kidney is located in the thoracic cavity between the two lungs.

Ans: False. Heart is located in the thoracic cavity between the two lungs.

8. A resting person usually has a pulse rate between 72 to 80 beats per minute.

Ans: True

9. Pulmonary artery carries blood from the lungs to the left atrium.

Ans: False. Pulmonary vein carries blood from the lungs to the left atrium.

10. Heart forms an effective barrier against infection by microbes and pathogens.

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Ans: False. Skin forms an effective barrier against infection by microbes and pathogens.

11. The nitrogenous wastes are removed from the body by the endocrine system.

Ans: False. The nitrogenous wastes are removed from the body by the excretory system.

4. Analogy:

- 1. Skull protects : Brain :: Rib cage protects : Heart and liver
- 2. The smallest bone of our body : Stapes :: The longest bone of our body : Femur
- 3. A newborn baby has bones: more than 300 :: An adult has bones : 206
- 4. Skeletal muscle : Muscle of arm :: Cardiac muscle : Walls of heart.
- 5. Heart : Pericardium membrane :: Lungs: Pleura membrane.
- 6. Carries blood from right ventricle to lungs : Pulmonary artery.

Carries blood from the lungs to left atrium : Pulmonary vein.

7.Carry oxygenated blood : Arteries :: carry deoxygenated blood: Vein.

8. Neurons : Nervous system :: Nephrous : Excretory system

5. Match the following:

A. 1. Skeletal system	-	a) Heart
2. Digestive system	-	b) Kidney
3. Respiratory system	-	c) Brain
4. Circulatory system	-	d) stomach
5. Nervous system	-	e) Lungs
6. Excretory system	-	f) Skull
Ans: 1-f; 2-d; 3-e; 4-a; 5-c; 6-b)	
B. 1. Producting bile	-	a) Salivary gland
2. Nutrients absorbed	-	b) stomach
3. Starch breaks down	-	c) Liver

4. Stores food - d) Large intestine

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5. Absorbs water - e) Small intestine

Ans: 1-c; 2-e; 3-a; 4-b; 5-d

C. 1. At the base of brain	-	a) Gonads
2. Neck region	-	b) Adrenal gland
3. Abdomen region	-	c) Pituitary gland
4. Above the kidney	-	d) Thyroid gland
5. Pelvic cavity	-	e)_ Pancreas

Ans: 1-c; 2-d; 3-e; 4-b; 5-a

6. Short Questions & answer:

1. List the major organ system of our body.

Human body has eight major organ system. They are

- Skeletal system	- Muscular system
- Digestive system	- Respiratory system
- Circulatory system	- Nervous system
- Endocrine system	- Excretory system

2. Axial skeleton – Explain.

Axial skeleton forms the upright axis of the body which includes skull, vertical column and rib cage.

3. What are the bones found in the skull?

Hyoid bone and the aurditory ossicles like Malleus, Incus and Stapes are found in the skull.

4. What are the three types of muscles?

They are skeletal muscle, smooth muscle and cardiac muscles.

5. Hot do muscle work?

Muscles of the body can only pull and they cannot push. Two muscles are required to move a bone at the joint. When one muscle contracts the other muscle relaxes. Thus muscles do work.

6. List the parts of digestive system.

Parts of digestive systems are Mouth, Buccal cavity, Phanynx, Oesophagus, Stomach, Small intestine, Large intestine, Anus.

7. List the glands associated for digestion.

Salivary glands, Gastric glands, Liver, pancreas and Intestinal glands are associated glands for digestion.

8. List the parts of respiratory sytem.

Respiratory system consists of nostrils, nasal cavity, pharynx, larynx, trachea, bronchi, and lungs.

9. What is internal respiration?

Taking in oxygen and giving out CO_2 , The circulatory system transports O_2 and CO_2 to and from all parts of body. Hemoglobin in the red blood cells transports O_2 and CO_2 . This is called internal respiration.

10. Define – blood.

Blood is fluid connective tissue of red colour containing plasma and blood cells. There are three types of blood cells namely Red blood corpuscles (RBCs), White Blood Corpuscles (WBCs) and Blood Platelets. RBCs are produced in the bone marrow.

11. What is pulse rate?

The number of beats per minute is called pulse rate.

12. Name the three regions of brain.

The three regions of brain are fore brain, mid brain and hind brain.

13. List the endocrine glands found in our body.

Pituitary gland, Pineal gland, Thyroid gland, Thymus gland, Pancreas, Adrenal gland, Gonads are found in our endocrine system.

7. Parts of Computer

1. Choose the correct answer:

1. The ______ is used to move the pointer on a computer screen.

a) pendrive b) microphone

c) mouse d) scanner

2. the page on the monitor can be moved up and down using the _____

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- a) Right button b) Scroll ball
- c) left button d) number key

3. Memory can he expanded externally with the help of _____

- a) compact disc b) mouse
- c) keyboard d) light pen

4. The dat is measured in units which is called as_____

- a) micron b) meter
- c) millimeter d) bit
- 5.To connect the speaker to the computer _____ is used.
 - a) mic cable **b) audio jack**
 - c) power cord d) data cable

2. Fill in the blanks:

- 1. The data is processed in the <u>CPU</u>.
- 2. the output unit converts, commend received by the computer in the form of **binary signals**.
- 3. The computer system which has <u>TFT</u> monitor, emits less heat.
- 4. <u>Personal</u> computer comes under the micro computer.
- 5. As the computer is connected with one another, it is also called as system.
- 6. To connect the Mic to the CPU <u>mic wire/cord</u> is used.

3. Short Questions & answer:

1. Give some examples of input devices.

Keyboard, mouse, scanner, barcode reader, microphone, web camera, light pen are some input devices.

2. What are the two types of keys in key board?

Keyboard has two types of keys namely number keys and alphabet keys.

3. Give the uses of right and left buttons of mouse.

Right button is used to select files and to open folders. Left button is used to carry out corrections in the file.

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4. What are the parts of CPU?

CPU has three parts namely

i) Memory unit ii) Arithmetic logic unit (ALU) iii) Control unit

5. Define Memory unit.

The memory unit in the computer saves all data and information temporarily.

6. Give some examples of output device.

Monitor, printer, speaker, scanner are some of the output devices.

7. Name the types of monitors.

There are two types of monitors, namely

- i) Cathode Ray Tube monitors (CRT)
- ii) Thin Film Transistor monitors (TFT)

8. How is a computer classified?

A computer can be classified as follows:

- i) Main frame computer
- ii) Mini Computer
- iii) Micro or personal computer.
- iv. Super computer.

9. What are the types of personal computer?

Personal Computer can be classified into three types.

- i) Desktop
- ii) Laptop
- iii) Tablet

10. What is the use of Ethernet?

Ethernet cable helps to establish internet connectivity.

11. Give two examples of wireless connection.

Bluetooth and WiFi are used to connect internet without using cables.

12. What is the use of Bluetooth?

Mouse, keyboard can be connected to the computer using the Bluetooth. Using the Bluetooth, the data can be shared with nearby devices.

13. What is the use of Wi-Fi?

Net connectivity can be obtained using the Wi-Fi without any connecting cable. Any data from anywhere can be shared using Wi-Fi.

14. What are the types of connecting cables? Describe them.

Types of cables

- Video Graphics Array (VGA)
- High Definition Multimedia Interface (HDMI)
- Universal Serial Bus (USB)
- Data Cable
- Power Cord
- Mic cable
- Ethernet cable

1. VGA Cable: it is used to connect the computer monitor with the CPU.

2. USB cable card: Devices like printer, pendrive, scanner, mouse, keyboard, web camera and mobile phone devices are connected with the computer using USB card or cable.

3. HDMI cable: HDMI cable transmits high quality and high bandwidth steams of audio and video. It connects monitor, projector with the computer.

4. Data cable: Data cable transmits data and it is used to connect tablet, mobile phones to the CPU for data transfer.

- 5. Audio jack: The audio jack is used to connect the speaker to the computer.
- 6. Power card: Power card temporarily connects an appliance to the main electricity supply.
- 7. Mic cable: To connect the Mic to the CPU, mic wire/cord is used.
- 8. Ethernet: Ethernet cable helps to establish internet connectivity.