



Winmeen's

7th Std 2nd Term Science

Book Back + Important Questions

New Book - English Medium



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7th Science 2nd Term – [New Book]**[Book Back + Important Questions]****PHYSICS - UNIT – 1****HEAT AND TEMPERATURE****I. Choose the correct answer:**

1. International unit of measuring temperature is _____
(a) **Kelvin** (b) Fahrenheit (c) Celsius (d) Joule
2. In thermometer when bulb comes in contact with hot objects, liquid inside it
(a) **Expands** (b) Contracts (c) Remains same (d) None of above
3. The body temperature of a healthy man is;
(a) 0°C (b) **37°C** (c) 98°C (d) 100°C
4. Mercury is often used in laboratory thermometers because it _____
(a) Is a human liquid
(b) Is silvery in colour and is attractive in appearance
(c) **Expands uniformly**
(d) Is a low cost liquid
5. Which of the following temperature conversions is incorrect $K \text{ (Kelvin)} = ^\circ C \text{ (Celsius)} + 273.15$

$^\circ C$	K
(a) -273.15	0
(b) -123	+150.15
(c) +127	+400.15
(d) +450	+733.15

Additional questions:

6. Heat energy is the total _____ of the particles that make up a substance.
(a) Potential energy (b) **Kinetic energy** (c) Temperature (d) None
7. Heat energy is always transferred from _____ to _____ temperatures.

Ans: Higher temperature region, lower temperature region

4. -7°C temperature is _____ than 0°C temperature.

Ans: Less

5. The common laboratory thermometer is a _____ thermometer.

Ans: Mercury

Additional questions:

6. Digital thermometers do not use _____

Ans: Mercury.

7. In a thermometer, when liquid gets heated, it _____ and when it is cooled down, it _____.

Ans: Expands, contracts.

8. The SI unit of temperature is _____

Ans: Kelvin

9. A small change in the temperature causes change in _____ of a liquid.

Ans: Volume

10. The freezing point of alcohol is less than _____

Ans: -100°C

11. All clinical thermometers have a _____ that prevents mercury from flowing back into the bulb.

Ans: Kink

12. A clinical thermometer indicates temperatures from a minimum of _____ $^{\circ}\text{F}$ to a maximum of _____ $^{\circ}\text{F}$.

Ans: 94°F , 108°F

13. Before use, the mercury level in clinical thermometer should be below _____

Ans: 35°C or 94°F

14. The coldest natural temperature ever recorded on earth is _____

Ans: 178.45 K

15. The hottest natural temperature ever recorded on earth is _____

Ans: 329.85 K

16. Temperature of the universe in the earliest moments after the big bang is _____

Ans: 10^{32} K

III. Match the following:

- | | |
|-------------------------------------|---------------------------|
| 1. Clinical thermometer | (a) A form of energy |
| 2. Normal temperature of human body | (b) 100°C |
| 3. Heat | (c) 37°C |
| 4. Boiling point of water | (d) 0°C |
| 5. Melting point of water | (e) Kink |

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

Additional questions:

- | | |
|-------------------------|---------------------------------|
| 6. Mercury | (a) Maximum minimum thermometer |
| 7. Weather report | (b) -173.15°C |
| 8. 32°F | (c) Opaque and shining |
| 9. 100 k | (d) 0°C |

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

V. Assertion and Reason:

Additional questions:

1. Assertion (A): Heat energy is transferred from one body to another due to a temperature difference between them.

Reason (R): Heating a substance causes a rise in temperature.

(a) Both (A) and (R) are true and (R) is the correct explanation of assertion.

(b) Both (A) and (R) are true but (R) is not the correct explanation of assertion.

(c) (A) is true but (R) is false

(d) (A) is false but (R) is true.

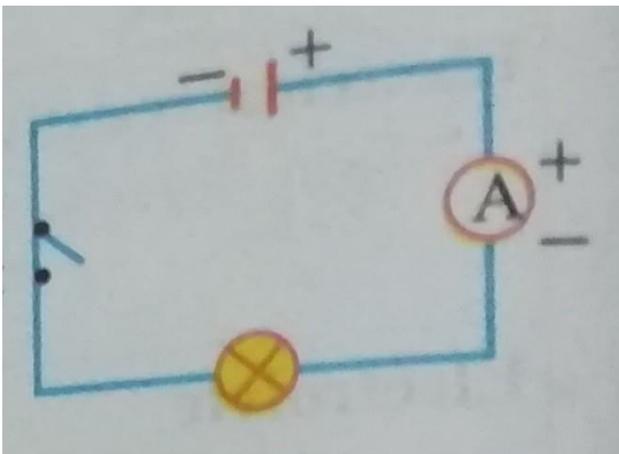
2. Assertion (A): When a very hot liquid is poured into a thick glass tumbler it cracks.
Reason (R): Unequal expansion of inner and outer glass walls causes the glass to crack.
- (a) Both (A) and (R) are true and (R) is the correct explanation of assertion.
(b) Both (A) and (R) are true but (R) is not the correct explanation of assertion.
(c) (A) is true but (R) is false
(d) (A) is false but (R) is true.

UNIT – 2

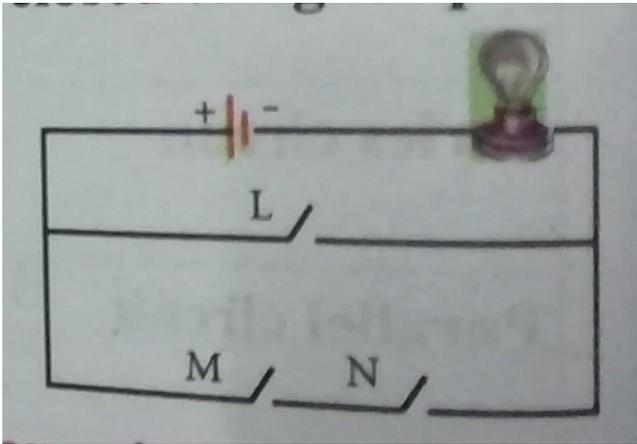
ELECTRICITY

I. Choose the correct answer:

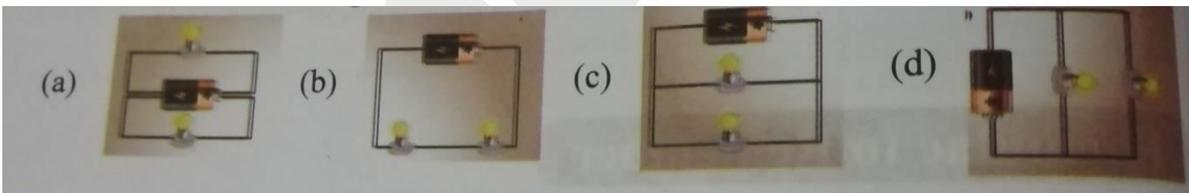
1. In the circuit diagram below, 10 units of electric charge move past point x every second. What is the current in the circuit _____.



- (a) 10 A (b) 1 A (c) 10 V (d) 1 V
2. In the circuit shown, which switches (L, M or N) must be closed to light up the bulb?



- (a) Switch L only
 - (b) Switch M only
 - (c) Switch M and N only
 - (d) Either switch L or switches M and N**
3. Small amounts of electrical current are measured in milliampere (mA). How many milliampere are there in 0.25 A?
- (a) 2.5 mA (b) 25 mA **(c) 250 mA** (d) 2500 mA
4. In which of the following circuits are the bulb connected in series?

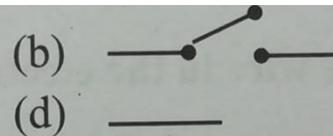
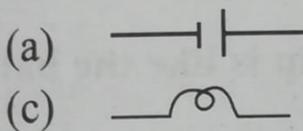


Ans: (b)

Additional questions:

5. An electric component used as a safety device in electric circuit is _____
- (a) Cell (b) Electric wires (c) Switch **(d) Fuse**
6. In an electric circuit, the current starts from
- (a) The positive terminal of the battery**
 - (b) The negative terminal of the battery
 - (c) Either of the terminals of the battery

- (d) None
7. _____ was developed in 1887 by Yei Sakizo of Japan
- (a) Alkaline cell (b) Button cell
(c) Lead accumulator (d) **Dry cell**
8. _____ is used to operate devices such as mobile phones, computers and emergency lights.
- (a) Primary cell (b) **Secondary cell** (c) Lithium cell (d) None
9. A battery is a group of _____
- (a) Only two cells (b) Only single cell
(c) **Two or more cells** (d) All of these
10. Which of the following is an electrical conductor?
- (a) Cork (b) Wood (c) Plastic (d) **Silver**
11. Which one of the following phenomenon occurs when two naked wires of electricity supply line touch other?
- (a) Lightning (b) **Short circuiting** (c) Overloading (d) None
12. Magnetic effect of current was discovered by _____
- (a) Flemming (b) John Dalton (c) Newton (d) **Hans Christian Oersted**
13. Which of the following is the symbol for a bulb?



Ans: (c)

14. Electricians wear rubbers gloves because it is _____
- (a) Soft (b) **An insulator** (c) Conductor (d) Water proof

II. Fill in the blanks:

1. The direction of conventional current is _____ to electron flow.

Ans: **Opposite.**

2. One unit of coulomb is charge of approximately _____ protons or electrons.

Ans: 6.242×10^{18}

3. _____ is used to measure the electric current.

Ans: Ammeter.

4. In conducting materials electrons are _____ bounded with atoms.

Ans: Loosely

5. S.I. unit of Electric conductivity of a conductor is _____

Ans: Siemens/metre (s/m)

Additional questions:

6. _____ is a common example of the practical application.

Ans: Arc welding

7. An insulator gives a lot of _____ to the flow of charge (electron).

Ans: Resistance

8. Wires made of _____, an electrical conductor, have very low resistance.

Ans: Copper.

9. The chip which are used in SIM cards and ATM cards are made up of _____

Ans: Semi-conductors

10. _____ are used to remove splinters of steel or iron in hospitals dealing with eye injuries.

Ans: Electromagnets.

11. Edison used a _____ wire coil in a vacuum glass and discovered the first electric bulb in 1879.

Ans: Platinum

12. _____ cells cannot be recharged after use.

Ans: Primary.

13. The SI unit of potential difference is _____

Ans: Volt (V).

14. The SI unit of resistance is _____

Ans: Ohm.

15. An electric charge always flows from a point at _____ to a point at _____

Ans: Higher potential, lower potential.

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

1. Electron flow is in the same direction to conventional current flow.

Ans: False. Electron flow is in the opposite direction to conventional current flow.

2. The fuse wire does not melt whenever there is overload in the wiring.

Ans: False. The fuse wire melts whenever there is overload in the wiring.

3. In a parallel circuit, the electric components are divided into branches.

Ans: True.

4. The representation of the electric current is A.

Ans: False. The representation of the electric current is I.

5. The electrical conductivity of the semiconductor is in between a conductor and an insulator.

Ans: True.

Additional questions:

6. Insulators do not carry electric current because they do not have free electrons.

Ans: True.

7. An MCB can be used instead of a fuse in an electric circuit.

Ans: True.

8. The flow of electric charge per unit time is called potential difference.

Ans: False. The flow of electric charge per unit time is called current.

9. The source which produces the small amount of electricity for a shorter period of time is called an electrochemical cell.

Ans: True.

10. Electric cell converts electrical energy into chemical energy.

Ans: False. Electric cell converts chemical energy into electrical energy.

11. The pipe is like the wire in the electric circuit and the pump is like the battery.

Ans: True

12. All batteries are made up of three components an anode, a cathode and some kind of electrolyte.

Ans: True.

13. An insulator gives a less resistance to the flow of charge

Ans: False. An insulator gives a more resistance to the flow of charge.

14. Electric fuse has a body made of ceramic and two points for connecting the fuse wire.

Ans: True.

15. Chemical reaction happens, when electricity passes through various conducting liquids.

Ans: True.

IV. Match the following:

- | | |
|---------------------------------|---|
| 1. Cell | (a) Used to open or close a circuit. |
| 2. Switch | (b) Safety device used in electric circuit. |
| 3. Circuit | (c) A complete path for the flow of an electric current. |
| 4. Miniature circuit
Breaker | (d) Reset by hand, circuit becomes complete once again. |
| 5. Fuse | (e) A device which converts chemical energy into
electrical energy |

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

Additional questions:

- | | |
|---------------------------|-----------------------------|
| 6. 1 mA | (a) Series |
| 7. 1 μ A | (b) Ohm – meter |
| 8. Ammeter | (c) 10 ⁻⁶ ampere |
| 9. Electrical resistivity | (d) 10 ⁻³ ampere |

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

- | | |
|---------------|-----------------------|
| 10. Current I | (a) Protons, neutrons |
|---------------|-----------------------|

11. Resistance R (b) $\frac{q}{t}$

12. Nucleus (c) σ

13. Electrical conductivity (d) $\frac{V}{I}$

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

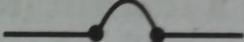
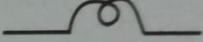
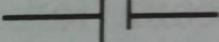
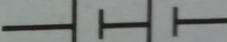
14. Dry cells (a) Reversible

15. Electrolyte (b) Opens or closes the circuit

16. Switch (c) Solution

17. Secondary cell (d) Torches

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

1.	Bulb	(a)	
2.	Cell	(b)	
3.	Battery	(c)	
4.	Switch (closed)	(d)	

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

V. Analogy:

1. Water : pipe : : Electric current : _____

Ans: Wire.

2. Copper : conductor : : Wood : _____

Ans: Insulator.

3. Length : metre scale : : Current : _____

Ans: Ammeter.

4. Milli ampere : micro ampere : : $10^{-3}A$: _____

Ans: $10^{-6}A$

VI. Assertion and Reason:

1. Assertion (A): Copper is used to make electric wires.

Reason (R): Copper has very low electrical resistance.

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) Both (A) and (R) are true but (R) is NOT the correct explanation of (A).

(c) (A) is true but (R) is false.

(d) (A) is false but (R) is true.

(e) Both (A) and (R) are false.

2. Assertion (A): Insulators do not allow the flow of current through themselves.

Reason (R): They have no free charge carries.

(a) If both (A) and (R) are true and the (R) is the correct explanation of (A).

(b) If both (A) and (R) are true but (R) is not a correct explanation of (A).

(c) If (A) is true and (R) is false.

(d) If both (A) and (R) are false.

Additional questions:

3. Assertion (A): Charges flow from higher potential to the lower potential.

Reason (R): Current flows mainly due to flow of electrons.

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) Both (A) and (R) are true but (R) is not the correct explanation of (A).

(c) (A) is true but (R) is false.

(d) (A) is false but (R) is true.

4. Assertion (A): Insulators do not allow flow of current through them.

Reason (R): Insulators have no free charge carrier.

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) Both (A) and (R) are true but (R) is not the correct explanation of (A).

(c) (A) is true but (R) is false.

(d) (A) is false but (R) is true.

5. Assertion (A): A current carrying wire should be charged.

Reason (R): The current in a wire is due to flow of free electrons in a definite direction.

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) Both (A) and (R) are true but (R) is not the correct explanation of (A).

(c) (A) is true but (R) is false.

(d) (A) is false but (R) is true.

6. Assertion (A): The connecting wires are made of copper.

Reason (R): The electrical conductivity of copper is high.

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).

(b) Both (A) and (R) are true but (R) is not the correct explanation of (A).

(c) (A) is true but (R) is false.

(d) (A) is false but (R) is true.

CHEMISTRY - UNIT – 3

CHANGES AROUND US

I. Choose the best answer:

1. When a woollen yarn is knitted to get a sweater, the change can be classified as _____

(a) Physical change

(b) Chemical change

(c) Endothermic change

(d) Exothermic change

2. _____ of the following are endothermic changes.

(a) Condensation and melting

(b) Condensation and freezing

(c) Evaporation and melting

(d) Evaporation and freezing

3. The chemical change is _____

(a) Water to clouds

(b) Growth of a tree

(c) Cow dung to bio – gas

(d) Ice – cream to molten ice – cream.

4. _____ is an example of a periodic change.

- (a) Earthquake (b) Formation of rainbow in sky
(c) Occurrence of tides in seas (d) Showering of rain

5. _____ is not a chemical change.

- (a) Dissolution of ammonia in water
(b) Dissolution of carbon – di – oxide in water
(c) Dissolution of oxygen in water
(d) Melting of polar ice caps

Additional questions:

6. The change of state of a substance from solid to liquid and liquid to gas is _____

- (a) Physical change** (b) A chemical change
(c) Combination of a physical and chemical changes (d) None

7. Rusting of iron is _____

- (a) An irreversible chemical change** (b) A reversible chemical change
(c) An irreversible chemical change (d) A reversible physical change

8. Keeping a stone in sunlight for few hours is _____

- (a) A physical change
(b) A chemical change
(c) Neither physical nor a chemical change
(d) Combination of physical and chemical change

9. Beating an egg to make a cake is a _____

- (a) Physical change (b) Reversible change
(c) Chemical change (d) Change in state

10. Large crystals of pure substances can be obtained from their solutions by the process of _____

- (a) Sublimation (b) Evaporation (c) Melting **(d) Crystallization**

11. Which of the following is not a physical change?

- (a) Crushing of a paper **(b) Burning of a paper**
- (c) Making boat of a paper (d) Melting of butter
12. Cut vegetables turn brown when exposed to air, this is due to _____
- (a) Evaporation **(b) Oxidation** (c) Neutralization (d) Displacement
13. Which gas is produced when vinegar reacts with baking soda?
- (a) Hydrogen **(b) Carbon-di-oxide**
- (c) Carbon monoxide (d) Oxygen
14. Vanaspathi is obtained from vegetable oils by addition of _____ to the oils.
- (a) Oxygen **(b) Hydrogen** (c) Carbon di oxide (d) Nitrogen
15. The simplest method of preventing rusting of iron is to coat it with oil, grease or paint. The reason being _____
- (a) This layer does not allow iron to come in contact with air.
- (b) This layer does not allow iron to come in contact with water.
- (c) This layer does not allow iron to come in contact with air and water.**
- (d) None

II. Fill in the blanks:

1. Filling up a balloon with hot air is a _____ change.
- Ans: Physical.**
2. Stretching gold coin into a ring is a _____ change.
- Ans: Physical.**
3. Opening a gas cylinder knob converts _____ fuel into _____ fuel. This is an example of _____ change.
- Ans: Liquid, gaseous, chemical.**
4. Spoiling of food is a _____ change.
- Ans: Chemical.**
5. Respiration is a _____ change.

Ans: Exothermic chemical.

Additional questions:

6. When water is added to _____ there will be evolution of heat along with the formation of slaked lime.

Ans: Quicklime

7. A lump of curd is the _____ that is obtained by the chemical reaction between hot milk and lemon juice.

Ans: Precipitate

8. Heat may evolved or absorbed during a _____ change.

Ans: Chemical

9. Salt is obtained from sea water by the process of _____

Ans: Evaporation

10. When magnesium is burnt in air, a new substance is formed which is _____

Ans: Magnesium oxide

11. _____ occurs in the absence of air in the presence of micro-organisms such as yeast.

Ans: Fermentation

12. _____ are substance that speed up the process of a chemical chanfe and it will not under go any change during the course of the reaction.

Ans: Catalysts

13. Galvanization is a process in which _____ is coated as a layer on iron.

Ans: Chromium or zinc

14. The chemical formula of rust is _____

Ans: $\text{Fe}_2\text{O}_3 \cdot \text{H}_2\text{O}$

15. _____ happens when molecules in a gas cool down

Ans: Condensation

16. Solid substances like _____, _____ that get converted into gas directly upon heating without becoming liquid.

Ans: Camphor, naphthalene

17. Dissolution of glucose in water is an _____ change.

Ans: Endothermic

18. In an endothermic process, the speed of the molecules is _____ hence they move faster.

Ans: Increased

19. _____ is the changing of liquid into its solid state and it happens by cooling.

Ans: Freezing

20. The rate of evaporation _____ with rising temperature.

Ans: Increases.

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

1. Cutting of cloth is an example of a periodic change.

Ans: False. Cutting of cloth is an example of a physical change.

2. Taking a glass of water and freezing it by placing it in the freezer is a chemical change.

Ans: False. Taking a glass of water and freezing it by placing it in the freezer is a physical change.

3. A bean plant collecting sunlight and turning it into bean seeds is an example of physical and non – periodic change.

Ans: False. A bean plant collecting sunlight and turning it into bean seeds is an example of chemical and non – periodic change.

4. If the chemical properties of a substance remain unchanged and the appearance or shape of a substance changes it is called a periodic change.

Ans: False. If the chemical properties of a substance remain unchanged and the appearance or shape of a substance changes it is called a physical change.

5. Tarnishing a silver is an example of endothermic change.

Ans: False. Tarnishing a silver is an example of chemical change.

Additional questions:

6. Nitrogen gas turns lime water milky.

Ans: False. Carbon-di-oxide gas turns lime water milky.

7. Cutting a log of wood into pieces is a chemical change.

Ans: False. Cutting a log of wood into pieces is a physical change.

8. Iron pipes coated with zinc do not get rusted easily.

Ans: True.

9. Iron and rust are the same substances.

Ans: False. Rust is iron oxide.

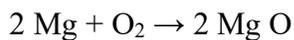
10. The chemical name of baking soda is sodium bi-carbonate.

Ans: True.

11. Adding sugar to milk is a physical change.

Ans: True.

12. Magnesium + oxygen → magnesium oxide.



Ans: True.

13. Evaporation is a fast process and occurs only at the surface of the liquid.

Ans: False. Evaporation is a slow process and occurs only at the surface of the liquid.

14. The rate of evaporation is more when the surface area is greater.

Ans: True.

15. When lemon juice is mixed with soda water, they produce brisk effervescences.

Ans: True.

IV. Match the following:

A	B	C
1. Melting	Change of state from Liquid to solid	(a) Ticking of clock
2. Condensation	Change of state from Liquid to gas	(b) Formation of ice cube
3. Evaporation	Change of state from	(c) Collecting flowers

- | | | | |
|----|-----------------------|------------------------------------|---------------------------|
| | | Solid to liquid | |
| 4. | Freezing | Change of state from | (d) Ice cube to water |
| | | Gas to liquid | |
| 5. | Periodic change | Occurs at regular time | (e) Water to steam |
| | | Intervals | |
| 6. | Non – periodic change | Occurs at irregular time intervals | (f) Stream to water drops |

Ans: 1-d, 2-f, 3-e, 4-b, 5-a, 6-c

Additional questions:

- | | | |
|-----|--------------------|---------------------|
| 7. | Folding of paper | (a) Crystallization |
| 8. | Oxidation | (b) Can be reversed |
| 9. | Zinc coating | (c) Cut apples |
| 10. | Solid in pure form | (d) Galvanization |
- Ans: 1-b, 2-c, 3-d, 4-a**
- | | | |
|-----|-----------------------|---------------------------|
| 11. | Burning of coal | (a) Rusting |
| 12. | Painting of a surface | (b) Evaporation |
| 13. | Dipping iron in water | (c) Chemical change |
| 14. | Salt from sea water | (d) Prevention of rusting |

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

- | | | |
|-----|---------------------|-----------------------------|
| 15. | Alloying | (a) Exothermic change |
| 16. | Crystallization | (b) Periodic change |
| 17. | Soap powder + water | (c) Mixing of molten solids |
| 18. | Seasonal changes | (d) Pure solid |

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

VI. Analogy:

1. Physical Change : Boiling :: Chemical Change : _____

Ans: Burning

2. Wood to saw dust : _____ : Wood to Ash : Chemical change

Ans: Physical change

3. Forest fire : _____ change : Change in period in a school : periodic change

Ans: Non – periodic.

BIOLOGY - UNIT – 4

CELL BIOLOGY

I. Choose the correct answer:

1. Basis unit of life.
(a) Cell (b) Protoplasm (c) Cellulose (d) Nucleus
2. I am the outer most layer of an animal cell. Who am I?
(a) Cell wall (b) Nucleus (c) Cell membrane (d) Nuclear membrane
3. Which part of the cell is called the brain of the cell?
(a) Lysosome (b) Ribosome (c) Mitochondria (d) Nucleus
4. _____ helps in cell division.
(a) Endoplasmic reticulum (b) Golgi complex
(c) Centriole (d) Nucleus
5. Suitable term for the various components of cell is _____
(a) Tissue (b) Nucleus (c) Cell (d) Cell organelle

Additional questions:

6. _____ is the largest organelle.
(a) Chloroplast (b) Mitochondria (c) Nucleus (d) Golgi apparatus
7. The _____ cells are spindle shaped.
(a) Muscle (b) Nervous (c) RBC (d) Epithelial
8. The _____ plays a role in change of colour and taste of fruits.
(a) Nucleus (b) Golgi bodies (c) Lysosome (d) Chloroplast

9. _____ lacks a nucleus.
(a) Nerve cell (b) Muscle cell (c) RBC (d) Brain cell
10. Starch is stored in _____
(a) Chloroplast (b) Leucoplast
(c) Chromoplast (d) Golgi apparatus

II. Fill in the blanks:

1. The jelly like substance present in the cell is called _____

Ans: Cytoplasm

2. I convert the Sun's energy into food for the plant. Who am I? _____

Ans: Chloroplast

3. Mature Red blood cell do not contain a _____

Ans: Nucleus

4. Unicellular organisms can only be seen under a _____

Ans: Microscope

5. Cytoplasm plus nucleoplasm is equal to _____

Ans: Protoplasm

Additional questions:

6. Plastids containing coloured pigments are called _____.

Ans: Chromoplasts

7. _____ cells have the ability to multiply and develop into different types of cells.

Ans: Stem

8. _____ are seen only in animal cells.

Ans: Centrioles

9. An organelle seen in bacteria and cell of higher organisms is _____.

Ans: Ribosome

10. Cell wall is made up of _____

Ans: Cellulose.

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

1. Animal cells have a cell wall.

Ans: False. Plant cells have a cell wall.

2. Salmonella is a unicellular bacteria.

Ans: True.

3. Cell membrane is fully permeable.

Ans: False. Cell membrane is selectively permeable.

4. Only plant cells have chloroplasts.

Ans: True.

5. Human stomach is an organ.

Ans: True.

6. Ribosomes are small organelles with a membrane.

Ans: False. Ribosomes are small organelles without a membrane.

Additional questions:

7. Leucoplast store steroids.

Ans: False. Leucoplasts store starch.

8. Bacteria is a animal cell.

Ans: False. Bacteria is a plant cell.

9. Amoeba contains chloroplasts.

Ans: False. Amoeba does not contains chloroplasts.

10. Mitochondria can help to photosynthesize.

Ans: False. Mitochondria can help to produce energy.

11. The cytoplasm consist of 90% water.

Ans: True.

12. The body of a nerve cell is branched.

Ans: True.

IV. Match the following:

- | | |
|-------------------------|---------------------------|
| 1. Transporting channel | (a) Nucleus |
| 2. Suicidal bag | (b) Endoplasmic reticulum |
| 3. Control room | (c) Lysosome |
| 4. Power house | (d) Chloroplast |
| 5. Food producer | (e) Mitochondria |

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

Additional questions:

- | | |
|----------------|-----------------------------|
| 6. Epithelium | (a) Contract |
| 7. Nerve cell | (b) Carry respiratory gases |
| 8. RBC | (c) Protection |
| 9. Muscle cell | (d) Conduct messages |

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

V. Analogy:

1. Bacteria : microorganism :: mango tree : _____

Ans: Macro-organism.

2. Adipose : tissue :: eye : _____

Ans: Organ.

3. Cell wall : plant cell :: centriole : _____

Ans: Animal cell.

4. Chloroplast : photosynthesis :: mitochondria : _____

Ans: Respiration.

Additional questions:

5. Golgi : secretion :: Endoplasmic reticulum : _____

Ans: Transport

6. Plant tissue : Xylem : : Animal tissue : _____

Ans: Epithelium

7. Plant organ : stem : : Animal organ : _____

Ans: Stomach.

VI. Choose the correct alternative from the following:

1. Assertion (A): Tissue is a group of dissimilar cells.

Reason (R): Muscle is made up of Muscle cell.

(a) Both (A) and (R) are true (b) Both (A) and (R) are false

(c) (A) is true but (R) is false (d) (A) is false but (R) is true

2. Assertion (A): Majority of cells cannot be seen directly with naked eye because

Reason (R): Cells are microscopic.

(a) Both (A) and (R) are true (b) Both (A) and (R) are false

(c) (A) is true but (R) is false (d) (A) is false but (R) is true

3. Assertion (A): Stem cells can form different types of cells.

Reason (R): They are found in plants and animals.

(a) Both (A) and (R) are true (b) Both (A) and (R) are false

(c) (A) is true but (R) is false (d) (A) is false but (R) is true

4. Assertion (A): The cell wall has pores.

Reason (R): Each cell is connected to its neighbouring cell.

(a) Both (A) and (R) are true (b) Both (A) and (R) are false

(c) (A) is true but (R) is false (d) (A) is false but (R) is true

UNIT – 5

BASIS OF CLASSIFICATION

I. Choose the correct answer:

1. The following characteristics are essential for classification.

(a) Similarities (b) Differences (c) Both of them (d) None of them

2. Approximately _____ species of living organisms found in the earth.
(a) **8.7 million** (b) 8.6 million (c) 8.5 million (d) 8.8 million
3. The largest division of the living world is _____
(a) Order (b) **Kingdom** (c) Phylum (d) Family
4. Who proposed the five kingdom of classification?
(a) Aristotle (b) Linnaeus (c) **Whittaker** (d) Plato
5. The binomial name of pigeon is _____
(a) Homo sapiens (b) Rattus rattus
(c) Mangifera indica (d) **Columbo livia**

Additional questions:

6. _____ belongs to Phylum Platyhelminthes.
(a) Ascaris (b) **Liver fluke** (c) Leucosolenia (d) Euglena
7. _____ are diploblastic.
(a) Protozoa (b) Annelida
(c) **Coelenterata** (d) Echinodermata
8. _____ is not a characteristic of Phylum Echinodermata.
(a) Water vascular system (b) Tube feet
(c) **Pores in the body** (d) Spicules
9. Bones with air cavities are seen in _____
(a) Snail (b) **Pigeon** (c) Bats (d) Cuttle fish
10. _____ is not oviparous.
(a) Snake (b) Crow (c) Frog (d) **Human being**
11. Plant is a thallus in _____
(a) **Algae** (b) Ferns (c) Bacteria (d) Pinus
12. Naked ovules are seen in _____
(a) **Cycas** (b) Funaria (c) Mango (d) Chara

13. _____ is not a fungus.
(a) Yeast (b) **Chalmydomonas** (c) Rhizopus (d) Agaricus
14. _____ belong to Monera.
(a) **Blue green algae** (b) Yeast
(c) Mushrooms (d) Red algae
15. _____ are called Amphibious plants.
(a) Ferns (b) **Mosses** (c) Fungi (d) Gymnosperms

Fill in the blanks:

1. _____ in 1623, introduced the binomial nomenclature.

Ans: Gaspard Bauhin

2. Species is the _____ unit of classification.

Ans: Basic

3. _____ are non – green and non – photosynthetic in nature.

Ans: Fungi

4. The binomial name of onion is _____

Ans: Allium sativum

5. Carolus Linnaeus is known as the Father of _____

Ans: Modern Taxonomy

Additional questions:

6. _____ was a greek philosopher who classified animals.

Ans: Aristotle

7. Paired and joined legs are seen in phylum _____

Ans: Arthropoda

8. Giving birth to young ones is described as _____

Ans: Viviparous

9. Animals belonging to phylum _____ are mostly parasites.

Ans: Aschelminthes

10. Flowering plants belong to _____

Ans: Angiosperms

11. _____ are considered to be first land plants.

Ans: Ferns

12. _____ are dominant plant forms of present day.

Ans: Angiosperms

13. All prokaryotes belong to kingdom _____

Ans: Monera

14. Scientific name for Human being is _____

Ans: Homo sapiens

15. Cones are produced by _____

Ans: Gymnosperms

III. True or False – If False give the correct statement:

1. Classification helps to know the origin and evolution of an organism.

Ans: True.

2. Fishes are aquatic vertebrates.

Ans: True.

3. In the year 1979, Five kingdom classification was proposed.

Ans: False. In the year 1969, Five kingdom classification was proposed.

4. True nucleus is seen in prokaryotic cell.

Ans: False. True nucleus is seen in eukaryotic cell.

5. Animal cells have cell wall.

Ans: False. Plant cells have cell wall.

Additional questions:

6. Animals belonging to phylum protozoa reproduce by fission.

Ans: True.

7. Specialised vascular tissues for conduction of food and water are seen in mosses.

Ans: False. Specialised vascular tissues for conduction of food and water are seen in Ferns.

8. Angiosperms are divided into monocots and dicots.

Ans: True.

9. The angiosperms are evergreen trees.

Ans: False. The gymnosperms are evergreen trees.

10. Fungi need water to complete their life cycle.

Ans: False. Mosses need water to complete their life cycle.

IV. Match the following:

- | | |
|-------------|---------------|
| 1. Monera | (a) Moulds |
| 2. Protista | (b) Bacteria |
| 3. Fungi | (c) Neem |
| 4. Plantae | (d) Butterfly |
| 5. Animalia | (e) Euglena |

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

Additional questions:

- | | |
|-----------------|--------------------|
| 6. Protozoa | (a) Spongy bones |
| 7. Annelida | (b) Hermaphrodite |
| 8. Coelenterata | (c) Soft body |
| 9. Aves | (d) Colonial forms |
| 10. Mollusca | (e) Conjugation |

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

- | | |
|-----------------|--------------|
| 11. Fungi | (a) Funaria |
| 12. Mosses | (b) Cycas |
| 13. Gymnosperms | (c) Adiantum |

14. Flowering Plants (d) Agaricus
15. Ferns (e) Tamarind

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

V. Assertion and Reason questions:

1. Assertion (A): Binomial name is the universal name and contains two names.
Reason (R): It was first introduced by Carolus Linnaeus.
- (a) Assertion is correct, Reasoning is correct
(b) Assertion is correct, Reasoning is incorrect
(c) Assertion is incorrect, Reasoning is correct
(d) Assertion and Reasoning are incorrect
2. Assertion (A): Identification, assortment and grouping are essential for classification.
Reason (R): These are basic steps of taxonomy.
- (a) Assertion is correct, Reasoning is correct**
(b) Assertion is correct, Reasoning is incorrect
(c) Assertion is incorrect, Reasoning is correct
(d) Assertion and Reasoning are incorrect

Additional questions:

3. Assertion (A): Angiosperms have ovary in the flower.
Reason (R): They produce fruits and seeds.
- (a) Assertion is correct, Reasoning is correct**
(b) Assertion is correct, Reasoning is incorrect
(c) Assertion is incorrect, Reasoning is correct
(d) Assertion and Reasoning are incorrect
4. Assertion (A): Blue green algae are prokaryotes.
Reason (R): They do not have a true nucleus.
- (a) Assertion is correct, Reasoning is correct**

- (b) Assertion is correct, Reasoning is incorrect
(c) Assertion is incorrect, Reasoning is correct
(d) Assertion and Reasoning are incorrect
5. Assertion (A): Xylem does not have vessels in angiosperms.
Reason (R): They conduct food.
- (a) Assertion is correct, Reasoning is correct
(b) Assertion is correct, Reasoning is incorrect
(c) Assertion is incorrect, Reasoning is correct
(d) Assertion and Reasoning are incorrect
6. Assertion (A): Reptiles are warm blooded animals.
Reason (R): They have scales.
- (a) Assertion is correct, Reasoning is correct
(b) Assertion is correct, Reasoning is incorrect
(c) Assertion is incorrect, Reasoning is correct
(d) Assertion and Reasoning are incorrect

UNIT – 6**DIGITAL PAINTING****I. Choose the correct answer:**

1. Tux paint software is used to _____
(a) **Paint** (b) Program (c) Scan (d) PDF
2. Which toolbar is used for drawing and editing controls in tux paint software?
(a) **Left Side: Toolbar** (b) Right Side: Toolbar
(c) Middle: Toolbar (d) Bottom: Toolbar
3. What is the shortcut key for undo option?
(a) **Ctrl + Z** (b) Ctrl + R (c) Ctrl + Y (d) Ctrl + N
4. Tux Math software helps in learning the _____

- (a) Painting (b) **Arithmetic** (c) Programming (d) Graphics

5. In Tux Math, Space cadet option is used for _____

- (a) **Simple addition** (b) Division (c) Drawing (d) Multiplication

Additional question:

6. Which tool is used to open an existing file

- (a) Line (b) **Open** (c) New (d) Undo

7. What is the shortcut key for print option?

- (a) Ctrl + S (b) Ctrl + O (c) **Ctrl + P** (d) Ctrl + Y

8. In tux paint scout option is used for _____

- (a) Simple addition (b) **Addition and subtraction**
(c) Division (d) Multiplication

9. Which tool is used to cancel a command given earlier _____

- (a) Quit (b) Magic (c) Eraser (d) **Undo**

10. Which tool is like a rubber stamps or stickers _____

- (a) Text (b) **Stamp** (c) Eraser (d) Magic

Additional questions:

II. Fill in the blanks:

1. When Tux paint first loads, a _____ screen will appear.

Ans: Title/credits.

2. The _____ tool helps us to draw freehand drawings.

Ans: Paint brush

3. The _____ tool is used to draw lines.

Ans: Line

4. _____ tool has a set of special tools.

Ans: Magic.

5. Clicking the _____ button will start a new drawing.

Ans: New.

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