

**Alternate Education Program For Teaching And Learning In September Month For 2021- 2022.**

**Alternate Academic Calendar**

Class:10

Subject: Science

Month: September



**Chapters:- Chapter-6 Life processes**

**Chapter-13 Magnetic effects of electric current.**

Sl no	Month/Week	Main learning abilities	Learning activities	Evaluation
1	Chapter-6 Life processes September First week	They Understand the concepts of life processes. 1. They will explain the process of nutrition in plants. 2.They will understand the structure and functions of Human digestive system. 3.They will know the structure of breathing and respiratory organs and the importance of different stages is understood.	1.List out the life processes that take place in our body. 2.Observing the growth of a plant for 4-5 days and then document the changes. 3.Activity given in the text book 6.1,6.2 4. Watching the growth of organism on the piece of bread, knowing the nutrition of that organism. 5. Activity 6.3 6. Activity given in the text book 6.4, 6.5. 7. Preparing the model of human digestive and respiratory system. 8.Samveda video lesson YouTube links. Use this links to know different types of life processes. <a href="https://www.youtube.com/watch?v=0pA5rJiEI3Q">https://www.youtube.com/watch?v=0pA5rJiEI3Q</a> Use this link to understand nutrition and breathing. <a href="https://www.youtube.com/watch?v=ZgP9LyYmsMI">https://www.youtube.com/watch?v=ZgP9LyYmsMI</a>	1. List out different types of life processes. 2. explain the role of stomata in photosynthesis 3.Explain the nutrition process in amoeba. 4. Draw the diagram of human alimentary canal and label the parts. 5. Write down the chart of breakdown of glucose by various pathways. 6. Practice book page numbers 18-23.

2	September second week	4.Understanding the importance of transportation in human beings.	<p>1. Draw the diagram of sectional view of human heart Video link showing the functioning of heart. <a href="https://youtu.be/HWZo_rv2AoY">https://youtu.be/HWZo_rv2AoY</a></p> <p>2. Use the instrument to measure blood pressure</p>	1. Draw the diagram of human heart. Label the parts.
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		<p>5.They will describe the method of transportation in the plants.</p> <p>6.They will understand about the excretion in human beings.</p> <p>7. They shall understand about different stages of the process of excretion in plants.</p>	<p>(Sphygmomanometer) and showing how it function. Video link showing blood pressure testing method. <a href="https://youtu.be/Y8vrN-ggTJo">https://youtu.be/Y8vrN-ggTJo</a></p> <p>3. Showing the conduction of water by keeping Canada balsam plant in water.</p> <p>4. Observe the stomatal pore under microscope and draw the diagram.</p> <p>5.Draw the diagram of human excretory system and nephron, label the parts and write down the functions. Video link of structure of excretory system. <a href="https://youtu.be/EqnPuWcVIOM">https://youtu.be/EqnPuWcVIOM</a></p> <p>6. You tube links of Samveda video lessons. Use this video link to know in detail about transportation in human beings <a href="https://www.youtube.com/watch?v=EFXtQaXdfP8">https://www.youtube.com/watch?v=EFXtQaXdfP8</a> To know about transportation in plants use this link. <a href="https://www.youtube.com/watch?v=YRLfWBUIz_M">https://www.youtube.com/watch?v=YRLfWBUIz_M</a> To understand about excretion use this video link <a href="https://www.youtube.com/watch?v=A6CcHqTrXeE">https://www.youtube.com/watch?v=A6CcHqTrXeE</a></p>	<p>a) Blood vessel that brings deoxygenated blood to the heart from all the parts of the body.</p> <p>b) Blood vessel that brings oxygenated blood from lungs to heart.</p> <p>2. what are the functions of the lymph?</p> <p>3. How is the urine produced in human beings?</p> <p>4. How does the plants get rid of excretory products produced in them?</p> <p>5. Practice sheet/ Activity sheet 1,2,3,4,5.</p>
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3	September third week Chapter 13- Magnetic effects of electric current	<ol style="list-style-type: none"> <li>1. They shall list out the characteristic features of magnetic field and magnetic field lines.</li> <li>2. They will list the differences between the magnetic field caused by the electric current. <ol style="list-style-type: none"> <li>1) In a circular coil</li> <li>2) In the solenoid.</li> </ol> </li> </ol>	<p>Activity given in the text book 13.2, 13.3, 13.4 and 13.5. Youtube links of samveda video class Click on this link to understand the properties of magnet. <a href="https://www.youtube.com/watch?v=J2ekju-W07s">https://www.youtube.com/watch?v=J2ekju-W07s</a></p> <p>Activity given in the text book 13.6, 13.11 Use this link to understand about the magnetic field in a straight and circular coil. <a href="https://www.youtube.com/watch?v=Tb9HuI-T-eM">https://www.youtube.com/watch?v=Tb9HuI-T-eM</a></p>	<ol style="list-style-type: none"> <li>1. Draw the magnetic field Lines around a bar magnet and list the properties.</li> </ol> <p>Complete the work book page numbers from 44 to 49.</p> <ol style="list-style-type: none"> <li>1. What is a solenoid?</li> <li>2. How is the magnetic field inside a solenoid?</li> </ol> <p>Practice book page numbers 44 to 49.</p>
4	September fourth week	<ol style="list-style-type: none"> <li>3. They will understand the force exerted on a current carrying conductor in a magnetic field.</li> <li>4. They state Fleming's left hand rule.</li> <li>5. They will explain about the structure and working of an electric motor.</li> </ol>	<p>Activity given in the text book 13.12 Use this link to understand Fleming's left hand rule. <a href="https://www.youtube.com/watch?v=ZWsnW81MPaE">https://www.youtube.com/watch?v=ZWsnW81MPaE</a></p>	<ol style="list-style-type: none"> <li>1. When a current carrying conductor is placed in magnetic field, When does it experience more force?</li> </ol> <p>Complete the work book page number 44 to 49.</p>

		<p>6. Explain about electromagnetic induction.</p> <p>7. state the Fleming's right hand rule.</p> <p>8. They understand about the structure and working of electric generator.</p> <p>9. They understand about the structure of domestic electric circuits and apply in day today situations.</p>	<p>Activity given in the text book 13.9 and working of a dynamo in the cycle and the picture 13.19, picture 13.20.</p> <p>To know about Fleming's right hand rule click on this link</p> <p><a href="https://www.youtube.com/watch?v=kdN7CuYU9sI">https://www.youtube.com/watch?v=kdN7CuYU9sI</a></p> <p>To understand about the difference between direct and alternating current and domestic electric wiring click on this link</p> <p><a href="https://www.youtube.com/watch?v=ZM3wXQMZK0g">https://www.youtube.com/watch?v=ZM3wXQMZK0g</a></p> <p>Click on the link to view the method of preparing electromagnets.</p> <p><a href="https://youtu.be/FMaQG4Qps9s">https://youtu.be/FMaQG4Qps9s</a></p>	<p>1. Name two of the most commonly used safety devices in electrical circuits and equipment.</p> <p>2. Complete the work book page numbers 44 to 49.</p> <p>3. complete the Activity Sheet 1,2,3,4,5.</p>
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Advisory activities-

Using Soft iron, electric conductive wire with insulator cover, dry cell for making electromagnet.

Chapter-13

For the repetition and questionnaires of the chapter magnetic effects of electric current (Notice: For scanning QR code on your Android phone install Disksha app)



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Practice sheet/ Activity sheet-1

Class:10

Subject: Science

**Chapter-6 Life Processes.**

I Foreach of the following questions four options are given. Choose the most appropriate option and write down the option with alphabetical letter(Practice book page number-18 and 19)

1. Continuously occurring life process in an organism

- a. Locomotion                      b. Digestion                      c. Respiration                      d. Reproduction

2. During photosynthesis in plants the oxygen is,

- a. Released from carbon dioxide                      b. Released from water  
c. Released from sunlight                      d. Released from chlorophyll.

3. The emulsification process in the digestive tract is

- a. Related to proteins                      b. Related to carbohydrates  
c. Related to nucleic acids                      d. Related to fats

4. The rate of breathing in aquatic organisms is much faster than that in terrestrial organisms because

- a. The amount of oxygen dissolved in water is high.    b. The amount of oxygen dissolved in water is less.  
c. The amount of oxygen dissolved in both air and water are one and the same.

d. There is free oxygen in the water.

5. The blood pressure of a healthy person is

a. 120/80 mmHg   b. 80/120 mmHg   c. 100/80 mmHg   d. 60/100 mmHg

II Give scientific reasons for the following questions:

1. During summer season it is cooler when we stand under a tree.

2. Blood pressure is measured in arteries.

3. The walls of ventricles are thicker than the walls of atrium.

4. Often the elderly are prone to muscle cramps.

5. Most of the parasites found in the digestive system reside in the small intestine of the host organism.

Practice sheet/Activity sheet-2

Class:10

Subject : Science

Chapter-6 Life processes

I Answer the following questions( Practice book page numbers 22 and 23)

1. Expand ATP
2. Fish will die when they are taken out of the water. Give reason
3. In human digestive system in which part does the food gets completely digested?
4. What is the instrument used for measuring human blood pressure?
5. Draw the diagram depicting sectional view of the human heart and label the parts.

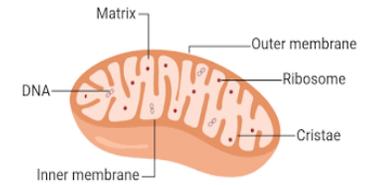
Practice sheet/ Activity sheet-3

Class : 10

subject : science

Chapter-6 Life processes

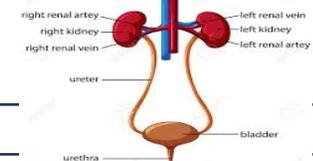
1. Look at the pictures and write down the life processes related to the picture in the space given,



CIRCULATION  
Chap. 12-1  
The Body's Transport System



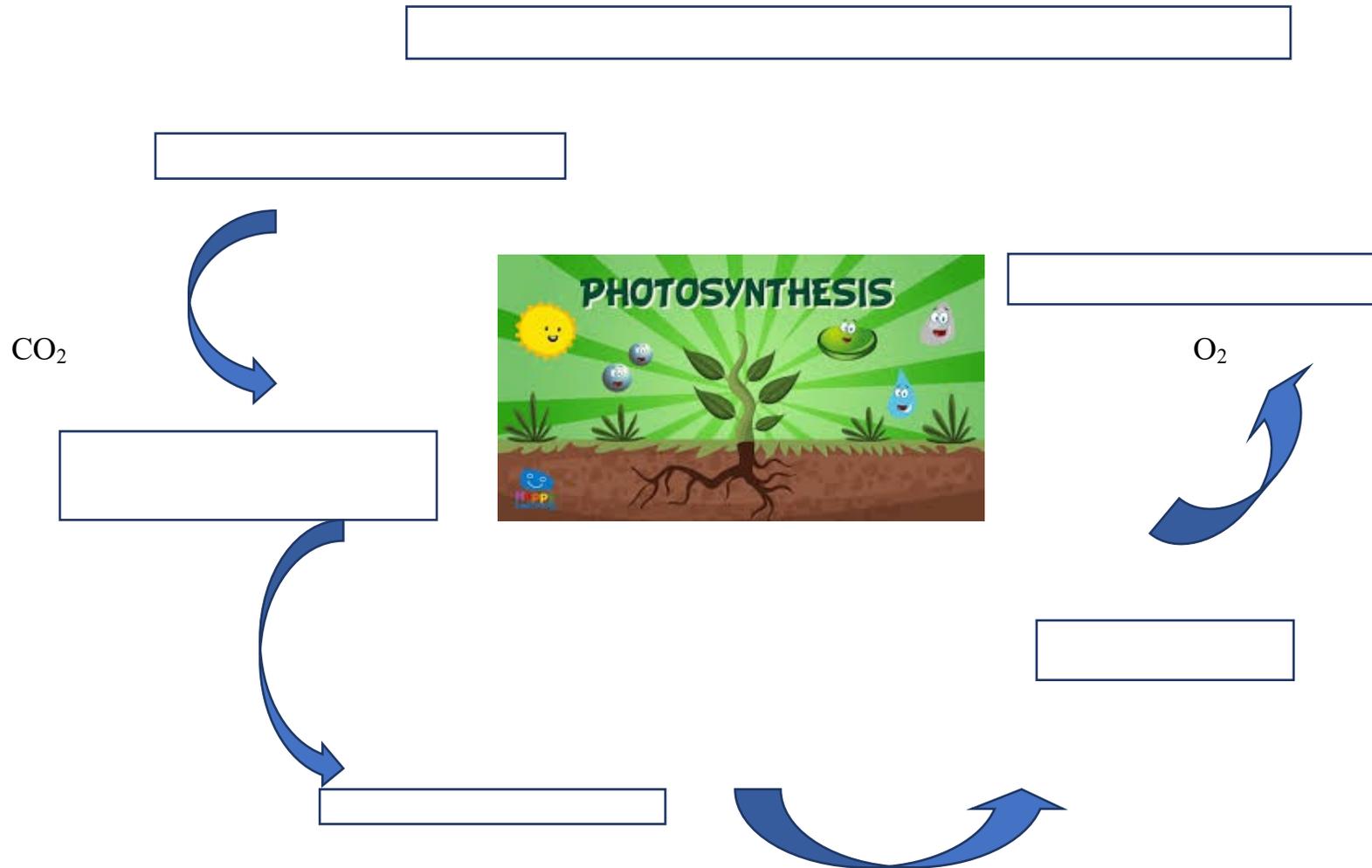
HUMAN KIDNEY ANATOMY



2. What are life processes? Explain the importance of life processes.

3. What is nutrition? What is special about nutrition in amoeba?

4. Complete the empty squares with respect to photosynthesis



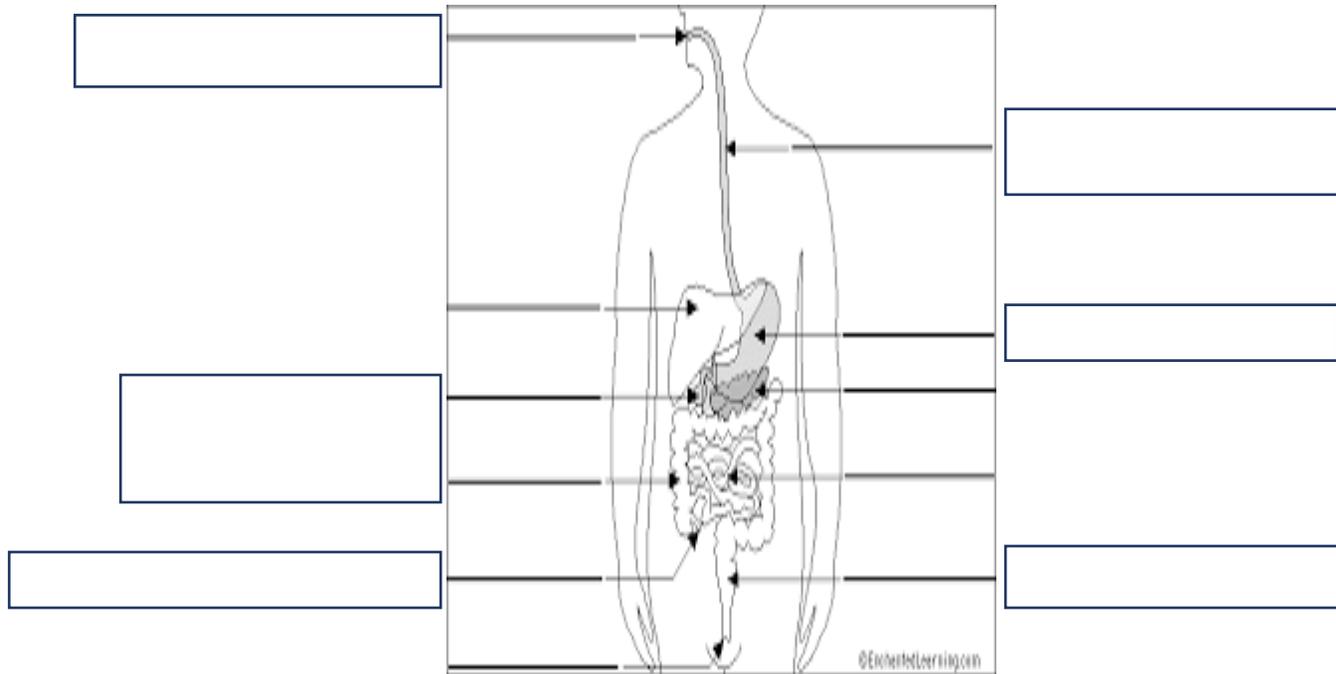
Practice sheet/ Activity sheet-4

Class : 10

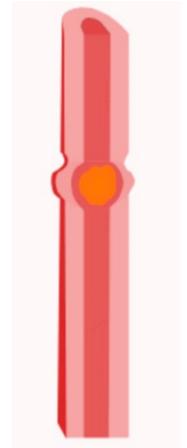
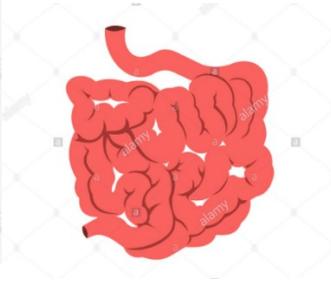
Subject : Science

Chapter-6 Life processes

1. Label the parts of human alimentary canal.



2. Label the parts of human digestive system and mention their functions,



Practice sheet/ Activity sheet-5

Class : 10

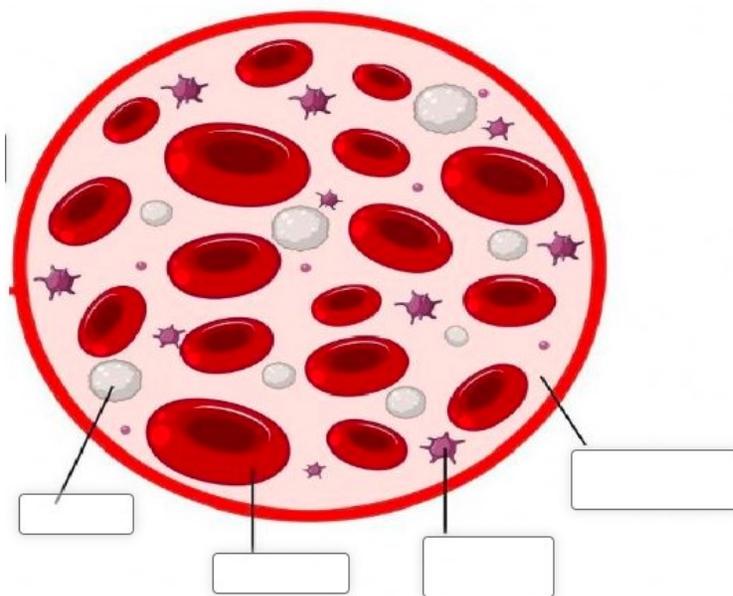
Subject : Science

Chapter-6 Life processes

I Fill in the blanks.

1. Blood enters the heart \_\_\_\_\_ number of times.
2. The absence of \_\_\_\_\_ is responsible for white color of blood in cockroaches.

II Write down the component of blood from this picture and list out their functions,



3. Name the three types of blood vessels.

4. What is lymph? What are its functions?

Advisory activities:

Human heart <https://www.liveworksheets.com/zx1915730tt>

Practice sheet/ Activity sheet-1

Chapter-13 Magnetic effect of electric current

Class : 10

Subject : Science

I For each of the following questions four options are given. Choose the most appropriate option and write down the option with alphabetical letter( Practice book page number-44 and 46):

1. Electricity and magnetism are mutually

a. Supplementary b. Opposite c. Equal and opposite d. Extreme forces.

2. In the dynamo if the coil is stable and the magnet is moving there is need for carbon brushes because

a. Electric current comes from a fixed source      b. Electric current comes from a moving source  
c. Direct current is generated      d. There is no need to change the direction of current.

3. Dynamo completes one hundred cycles per second(Circular movement), but the vibration of AC is

a. 100 Hz b. 200 Hz c. 50 Hz d. 400 Hz.

II Give scientific reasons:

1. In the construction of D.C dynamo instead of slip rings split rings are used.

2. Stable coils and stable bodies do not generate electric current.

III Answer the following questions:

1. What is a solenoid?

2. What is a armature?

3. On what factors does the force acting upon the conductor depends upon?

4. What is short circuit?
5. What is a neutral wire?

Practice sheet/ Activity sheet-2

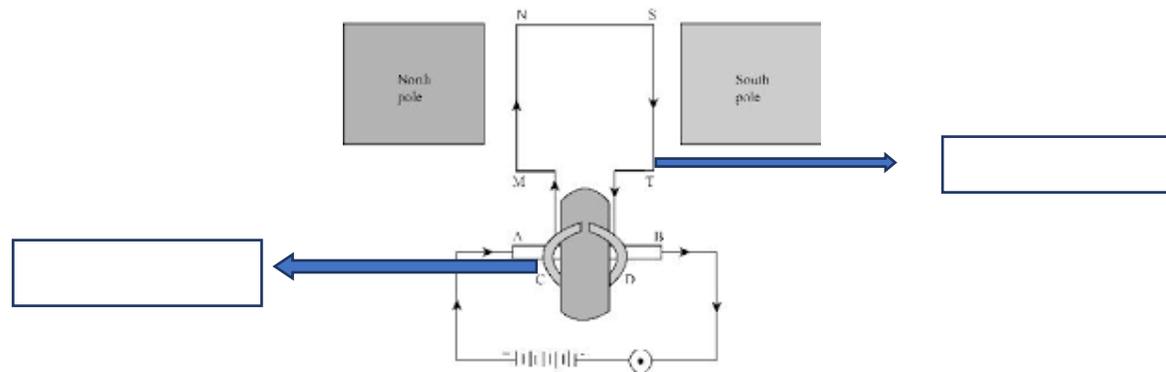
Chapter-13 Magnetic effect of electric current

Class : 10

Subject : Science

I Answer the following questions ( Practice book page number-48)

1. State Faraday's laws of electromagnetic induction.
2. Write down two uses of D.C. dynamo
3. Some parts of the picture is mentioned . Identify the parts and state their functions.



4. Differentiate between Fleming's right hand rule and Fleming's left hand rule

Practice sheet/ Activity sheet -3

Class : 10

Subject : Science

Chapter-13 Magnetic effects of electric current.

1. Write down battery, coils of wire and magnetic field. Identify the positive and negative terminal of a battery and identify the poles of the magnet.
2. Explain what happens when an iron nail is brought close to the coil
3. How to change the strength of the electromagnet ( number of turns or size of battery)
4. How many electric clips does your electro magnet attracts. Complete the table given below,

Electromagnet	How much paper clips will it hold
When there are 10-12 coils	
When there is less coil	
When there is more coil	
When the battery number is less	
When the battery number is more	

Write down the inference you arrive at after you complete the above said activity

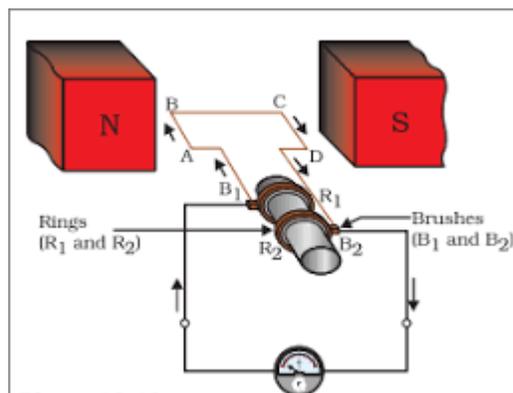
## Practice sheet/ Activity sheet-4

Class :- 10

Subject : Science

### Chapter-13 Magnetic effects of electric current.

1. Observe the diagram given below and answer the following questions:-



I In the above picture what kind of electric generator do you see ?

II What is an armature? Label it in the above diagram

III What is the type of current produced? Why is it called so ?

IV What is the frequency of electric current produced in India?

V When a rectangular copper coil is rotating in a magnetic field , the direction of induced electric current in the coil changes once after how many rotations?

Practice sheet/ Activity sheet-4

Class :- 10

Subject : Science

Chapter-13 Magnetic effects of electric current.

1. Match the following:-

A- list	B- list	Answer
1. Galvanometer	a .Principle of electromagnetic induction	
2.Ammeter	b. Magnetic effect of electric current	
3. Voltmeter	c. A device to indicate the presence of electric current	
4. Electric motor	d. A device used to measure current	
5. Electric generator	e. A device used to measure potential difference	
	f. Transformer	
	g. Secondary coil	

II Identify whether these statements given are wrong/right. Correct the wrong statement and write,

1. Electric motor converts mechanical energy into electrical energy.
2. Electric generator works on the principle of electromagnetic induction.
3. Commutator is a device that reverses the direction of current in the circuit.
4. DC generator has slip rings
5. A wire with a red insulated coating will have an earthing connection.