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 Provincial Department of Education - NWP

දෙවන වාර පරීක්ෂණය - 2025
 Second Term Test - 2025

Grade 7

Science

Time : 02 hours

No. / Index No.:




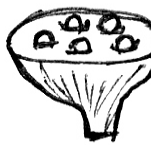
PART - I

- Underline the most appropriate answer.

01. The non flowering plant is,

- (1) Shoe flower (2) Rose (3) Manioc (4) Cycas

02. Which of the following seed is dispersed by water?

- (1)  Wara (2)  Gammalu (3)  Hora (4)  Lotus



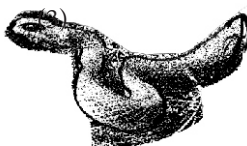

03. Select the answer which represents the pH value below 7 and more than 7 respectively,

- (1) Lime water, Sugar solution (2) Vinegar, Lime water
 (3) Ash solution, Vinegar (4) Sodium hydroxide, Lime water

04. The unit used to measure charges stored in a capacitor is,

- (1) Volt (2) Ampere (3) Farad (4) Coulomb

05. Select the invertebrate out of the followings,

- (1)  Grass hopper (2)  Lizard (3)  Rat snake (4)  Magpie

06. The structural and functional unit of life is,

- (1) Tissue (2) Organism (3) Cell (4) System

07. Through which substance the sound travels fast?

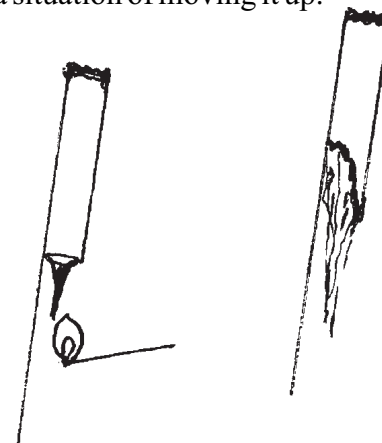
- (1) Air (2) Steel (3) Fresh water (4) Marine water

08. Figure below shows a situation of just before a sky cracker is lit and a situation of moving it up.

According to the above process, select the correct answer.

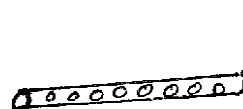
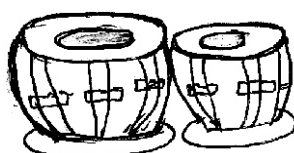
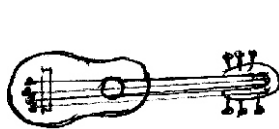
Statement :- When the smoke emits downwards due to the combustion of gun powder sky cracker moves upward.

Reason :- The chemical energy of gun powder is helpful for that.



Statement	Reason
(1) Correct	Incorrect
(2) Incorrect	Correct
(3) Incorrect	Incorrect
(4) Correct	Correct

09. Which of the following instrument produces sound by vibrating membranes?



(1) Gitar

(2) Thabla

(3) Flute

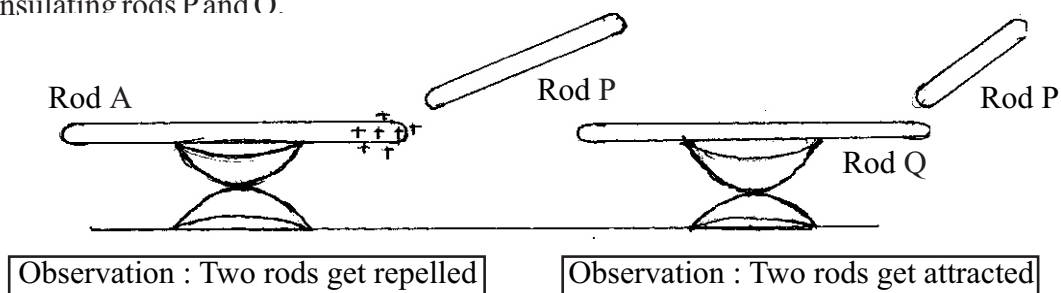
(4) Conch shell (Hak gediya)

10. a) Use of a battery to start a car.
b) Lightning the bulb of a foot cycle.
c) Activating a calculator using a solar cell.

The correct order of the type of current produces in above a, b and c is,

- (1) Direct current, Alternating current, Alternating current
(2) Direct current, Direct current, Alternating current
(3) Alternating current, Direct current, Direct current
(4) Direct current, Alternating current, Direct current

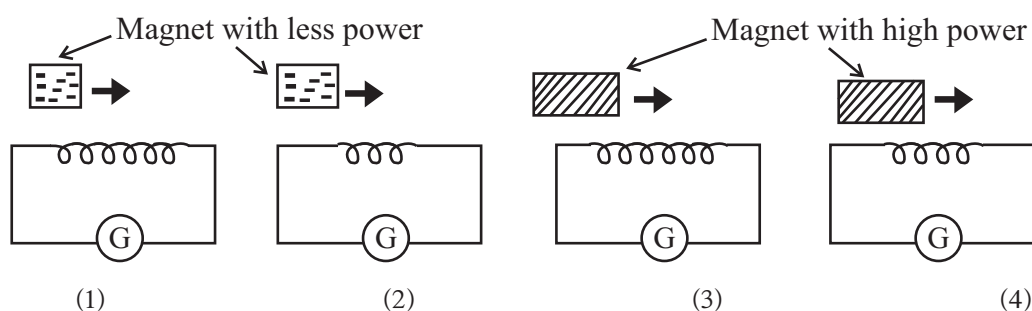
11. Figure below shows the way of using the rod A with known charge to identify the type of charge on two insulating rods P and Q.



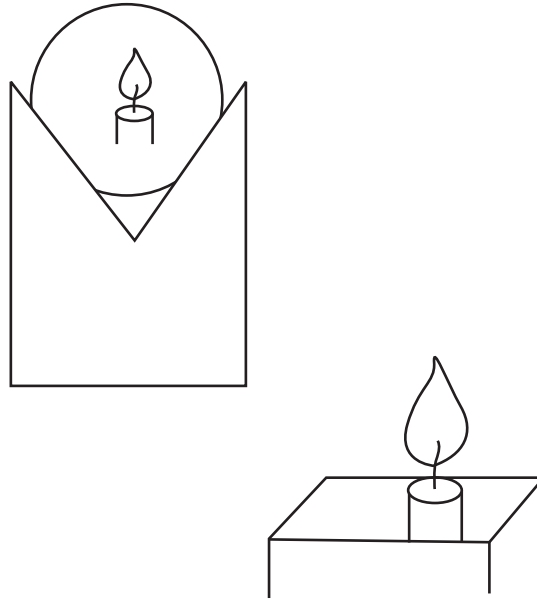
The type of charge on P and Q rods are,

- (1) Positive and Negative
(2) Negative and Positive
(3) Positive and Positive
(4) Negative and Negative

12. The common structure for digestive system and respiratory system is,
- (1) Larynx (2) Pharynx (3) Esophagus (4) Trachea
13. Three statements regarding the microscope are given below,
- (a) Objective is the lens closer to the object.
 (b) Body tube can be moved by coarse adjustment.
 (c) Concave lenses are used as the objective.
- Which one of the above is correct?
- (1) a and b (2) a and c (3) b and c (4) a, b and c all
14. To get a penumbra,
- (1) The distance between the object and the light source should be low.
 (2) The distance between the object and the screen should be high.
 (3) The distance between the object and the screen should be equal.
 (4) The distance between the object and the light source should be high.
15. Select the incorrect statement about water,
- (1) Due to the solvent property of water sugar can be produced by sugar cane.
 (2) Coolant property of water is helpful for buffalos when they are in water in the hot environment.
 (3) Water does not act as a medium for biological activities occur inside organisms.
 (4) The solvent property of water is helpful to transport substances like vitamins and medicines throughout human body.
16. Each 25 equal pieces of ekles coloured with red, white, yellow and green are randomly spread in a green colour lawn. Appoint 4 students seperately to pick out the pieces of ekles. Which coloured pieces of ekle have been collected at last?
- (1) Red (2) Yellow (3) Green (4) White
17. Which of the following circuit produces highest amount of current?



18. The way of seeing an image of the candle through the mirror is given below. Select the correct answer.

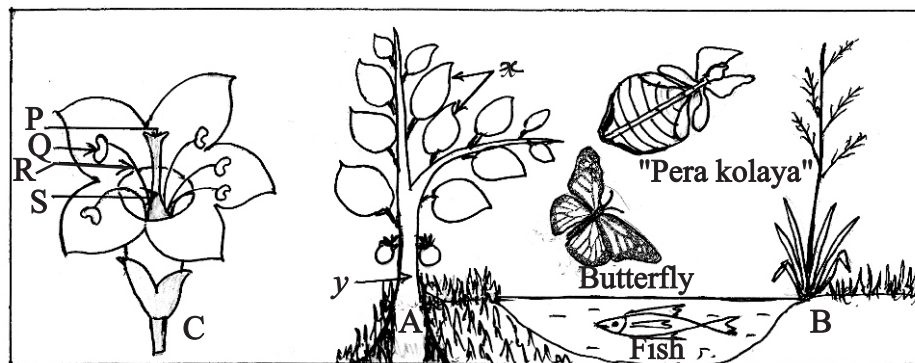


- (1) Convex mirror has been used. The image is real
 - (2) Convex mirror is used. The image is virtual.
 - (3) Concave mirror has been used. The image is virtual.
 - (4) Concave mirror has been used. The image is real.
19. Which of the following is correct regarding tectonic plates?
- (1) Tectonic plates move slowly.
 - (2) Spread from crust to core.
 - (3) Margins of tectonic plates move in two ways.
 - (4) Most of tectonic margins can be recognized on land.
20. Which of the following is correct regarding the increase of environmental temperature day by day?
- (1) Destruction of forests.
 - (2) Increase of the combustion of substances.
 - (3) Increase of working factories
 - (4) All of above.

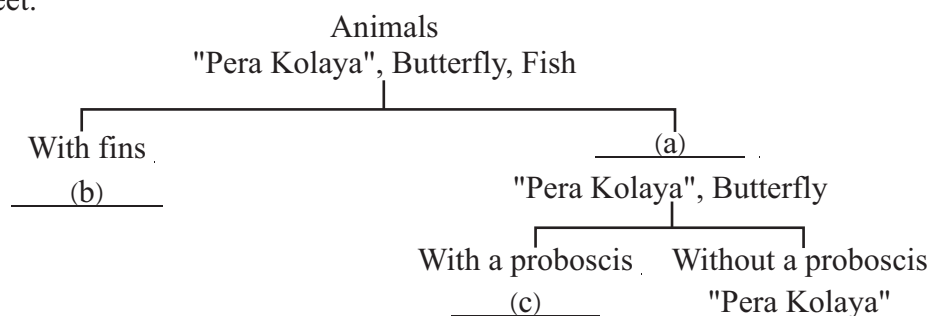
(2 x 20 = 40 marks)

- Answer five questions including question number one.
- Use a separate paper to answer the questions.

01. Figure below shows some animals, plants and flowers which can be seen in the environment.



- (A) (i) Name X and Y parts in plant A. (02m.)
- (ii) Draw a leaf of plant A and draw its leaf venation. (01m.)
- (iii) Write letters that indicate the parts of androecium in the given flower. (01m.)
- (iv) a) To which plant indicates as A and B, the flower C belongs? (01m.)
- b) Mention the reason for given answer in (a). (01m.)
- (v) Draw a diagram of the root system of plant B. (01m.)
- (vi) A student mentioned that there are no acidic and basic properties of water in which the fish lives. According to that how do you name that water? (01m.)
- (B) Using the animals given in the above figure answer the following questions.
- (i) Name a vertebrate animal. (01m.)
- (ii) Which property of water is helpful for the fish to live in water? (01m.)
- (iii) Name the characteristic of organism which is helpful in following instance,
- a) Difficult to identify "Pera kolaya" on guava plant at once. (01m.)
- b) Fish swims easily in water by avoiding the resistance. (01m.)
- (iv) For which the adaptations of animals to the environment is helpful to them? (01m.)
- (v) In the dichotomous key given below, write the letter relevant to the blank in your answer sheet. (03m.)



(Total marks = 16)

02. (A) A student in grade 7 put shoe flower boiled water to A and B solutions with detached labels in his house.

Observation :-

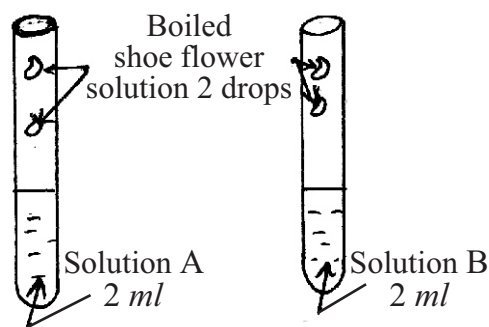
Solution A - Colour changed to red

Solution B - Colour changed to green

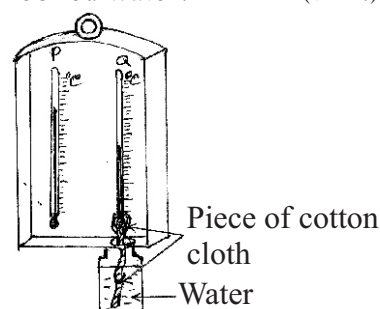
- (i) According to the above observation, which one is the acid out of A and B? (01m.)

- (ii) Litmus papers were put into A and B. According to the observations complete the following table. (02m.)

Solution	Colour with red litmus	Colour with blue litmus
A	red	<u>(a)</u>
B	<u>(b)</u>	blue

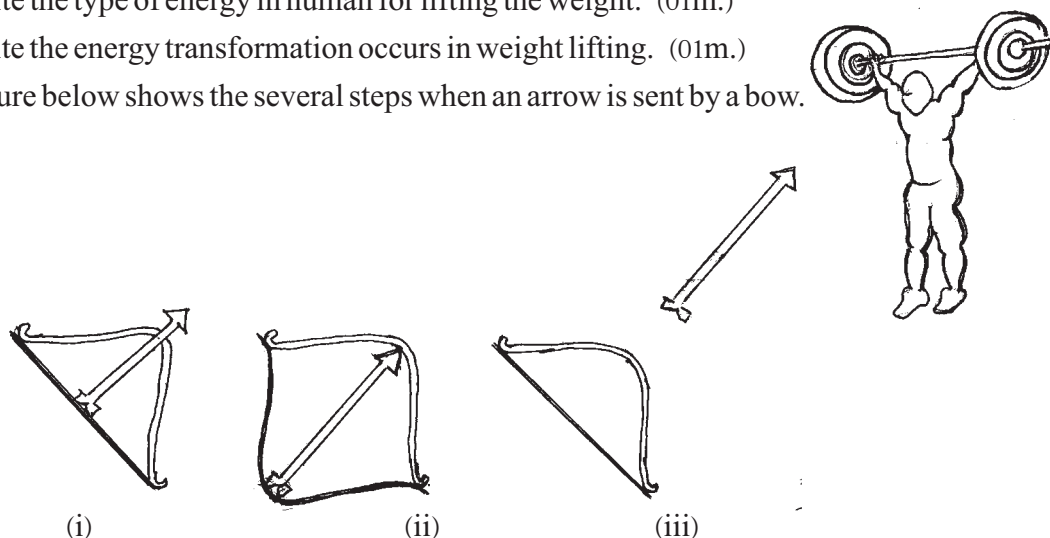


- (iii) Which name is used for the substances which give one colour in an acid and another colour in a base? (01m.)
- (iv) (a) Write an acidic solution used in house. (01m.)
 (b) Name a base used in the laboratory. (01m.)
- (v) Which property of water is used in preparing shoe flower boiled water? (01m.)
- (B) Figure below shows an instrument in the laboratory. P and Q are two equal thermometers.
- (i) In which thermometer the reading is low when it is observed in day time? (01m.)
- (ii) Explain the reason for above. (01m.)
- (iii) Which property of water is responsible for the above observation? (01m.)
- (iv) Some countries have fixed water sprinklers in towns to get humans' body wet in dry seasons. How is water important here to maintain their life? (01m.)



(Total marks = 11)

03. (A) (i) Write the type of energy in human for lifting the weight. (01m.)
 (ii) Write the energy transformation occurs in weight lifting. (01m.)
 (iii) Figure below shows the several steps when an arrow is sent by a bow.



Select the correct instance which tally with following description.

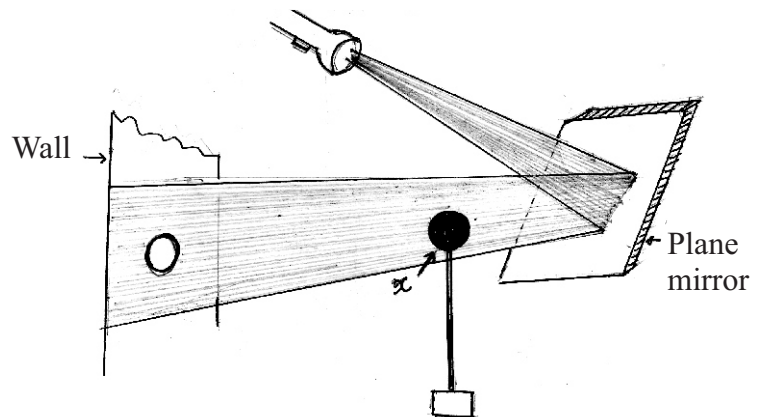
- a) Energy is stored in the bow. (01m.)
 b) Energy is not stored in the arrow. (01m.)
- (iv) Two types of energy are received to the earth by the sun. One type is heat energy.
- a) What is the other type of energy received by the sun? (01m.)
 b) Name a laboratory instrument which can be activated by the energy type you mentioned in (a). (01m.)

- (B) The internal structure of the earth should be made using clay. For that more amount of yellow colour, lesser amount of green colour and moderate amount of red colour clay are supplied. Whole amount of clay should be used to prepare the structure. According to that complete the following table.

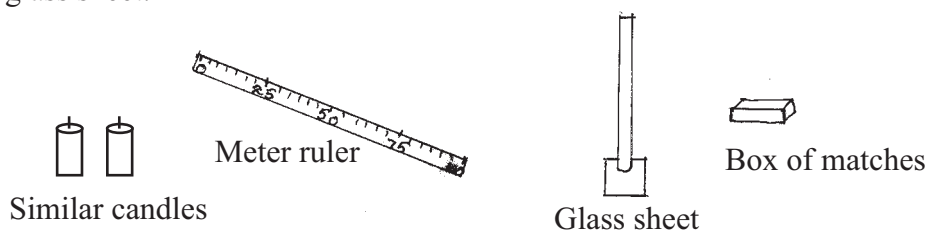
- | (i) | Layer of the earth | Colour of clay that should be used | |
|-----|--------------------|------------------------------------|--------|
| a) | | | |
| b) | | | |
| c) | | | (03m.) |
- (ii) Draw the cross section of the earth you made and label the layers. (01m.)
- (iii) From which layer more amount of aluminum is obtained? (01m.)

(Total marks = 11)

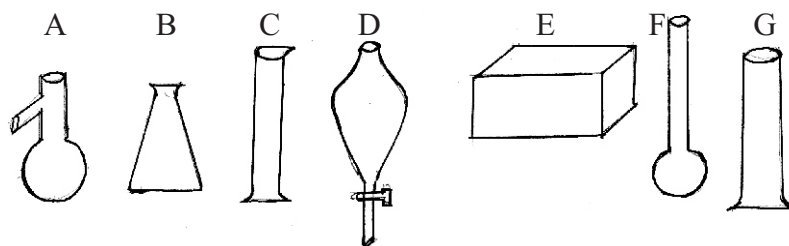
04. (A) Figure below shows the pathway of a light beam after falling on the plane mirror.



- (i) Which name is used for the phenomenon of returning the light rays in the same medium after falling on a surface? (01m.)
- (ii) Draw the correct type of mirror used when the face is observed using mirrors in a and b instances given below. (01m.)
- a) Seeing the face small. (01m.) b) Seeing the face big. (01m.)
- (iii) What is the property of object 'x' to get an umbra on the wall? (01m.)
- (iv) To get a sharp and clear umbra, is the object 'x' moved towards the wall or towards the plane mirror? (01m.)
- (v) Using the given materials draw the position of the image of an object kept in front of the glass sheet. (02m.)

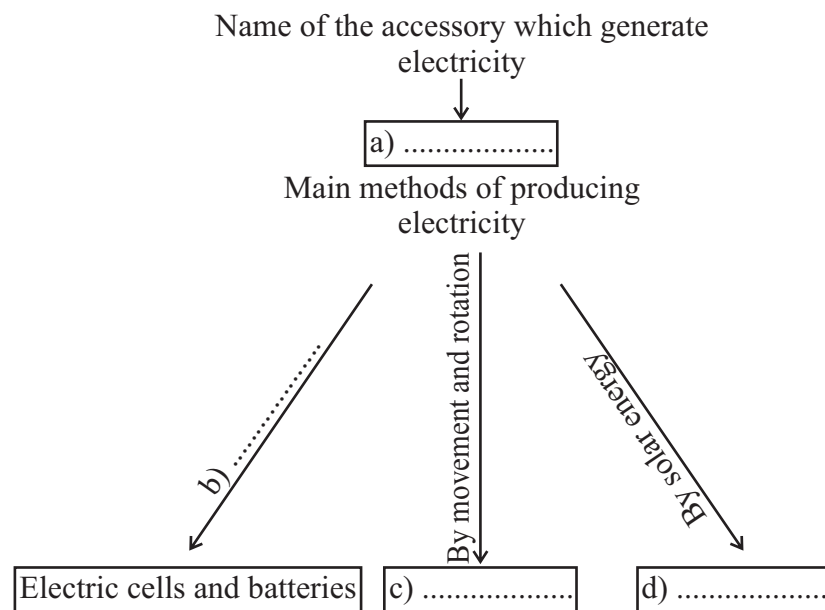


- (vi) Draw the pathway of two parallel light rays after falling on to the convex mirror. (01m.)
- (B) (i) Write the english letters of the objects which do not show lateral inversion. (02m.)

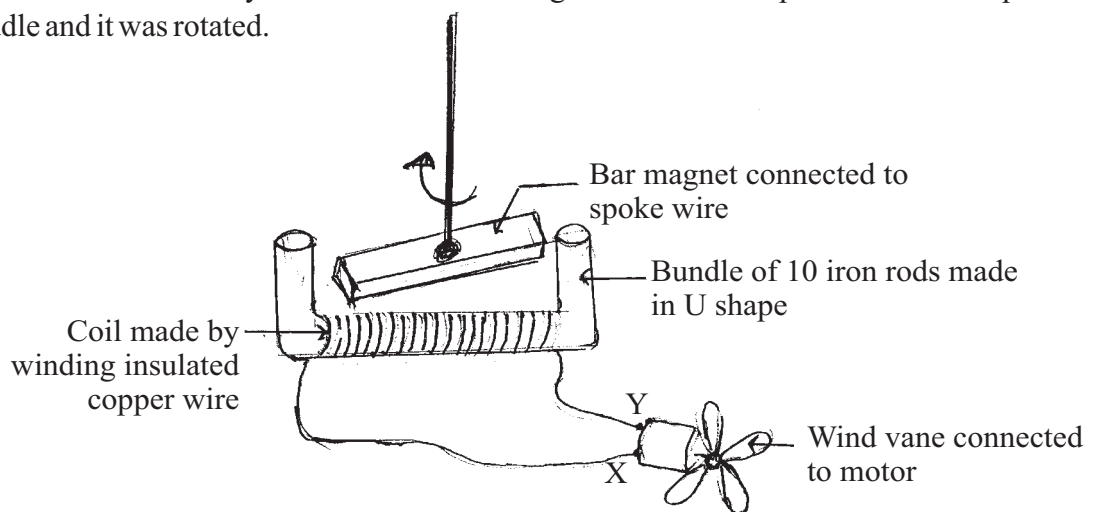


- (ii) Write the reason for using convex mirrors as side mirrors of vehicles. (01m.)

05. (A) A chart prepared by a student to study the lesson "generation of electricity" is given below.



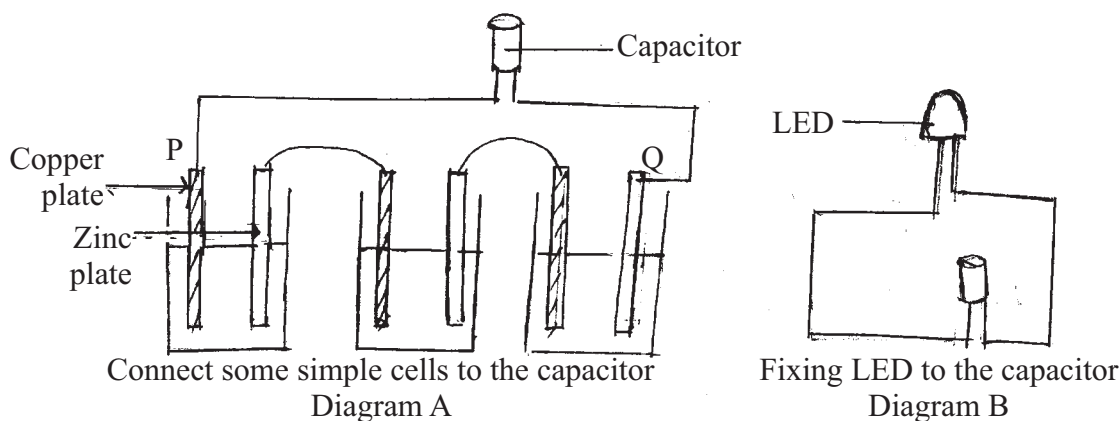
- (i) Write suitable words for a, b, c and d. (04m.)
- (ii) To generate electricity using the method mentioned in b, and apparatus with a lime fruit can be used. Draw a diagram of above apparatus and label the metal plates used there. (02m.)
- (B) A student made a simple dynamo as indicated below and a motor with a wind vane is connected at the x and y terminals. The bar magnet fixed to the spoke wire was kept in the middle and it was rotated.



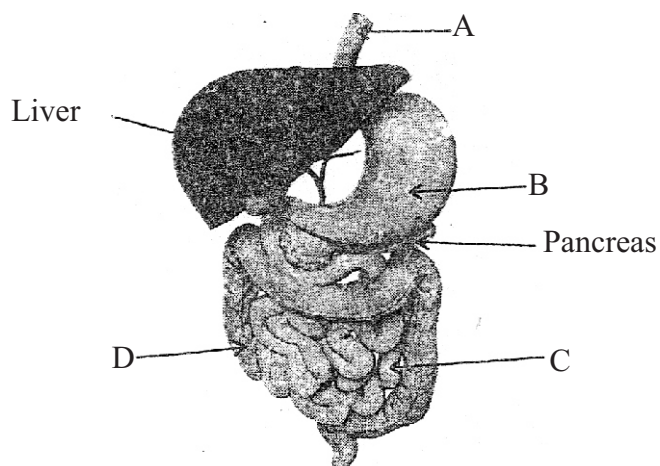
- (i) Which name is used for the principle used to generate electricity as mentioned above? (01m.)
- (ii) What is the observation seen in wind vane fixed to the motor when the magnet is rotated? (01m.)
- (iii) Which observation can be seen when LED is fixed to x and y terminals instead of the motor? (01m.)
- (iv) If you want to get an electricity flow to the same direction, which accessory should be connected to the terminals of motor instead of dynamo? (01m.)
- (v) Mention a change that should be done to the simple dynamo to increase the amount of current. (01m.)

(Total marks = 11)

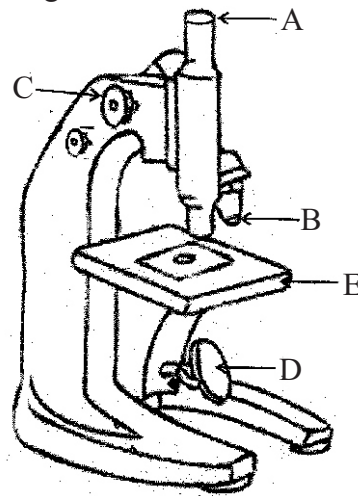
06. (A) A student hold the comb rubbed against dry hair close to the pieces of paper.
- What will be his observation? (01m.)
 - What are generated on insulated materials when rubbing? (01m.)
 - Who is the scientist observed for the first time that light objects are attracted when some objects are rubbed? (01m.)
 - Name a natural phenomenon occurs related to electricity when insulated substances are rubbed? (01m.)
- (B) Diagrams related to an activity done by a student to study the action of a capacitor is given below.



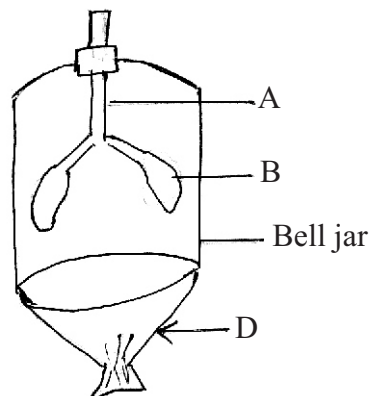
- What action is done to capacitor in diagram A? (01m.)
 - As in diagram B, what action happens to the capacitor after lighting LED? (01m.)
 - Which terminal of the capacitor is connected to the P terminal of the simple cell? (01m.)
 - Which name is used for the set up when several simple cells are connected as diagram A? (01m.)
- (C) Sound is generated by vibrating different substances.
- How is human voice created? (01m.)
 - In the space, two astronauts cannot hear each other's voice despite being closer to each other. What is the reason for this? (02m.)
- (Total Marks 11)
07. (A) A part of a system in human body is given below.



- (i) To which system does this belong? (01m.)
 - (ii) Name A, B, C and D. (02m.)
 - (iii) Name a system in a plant and write an organ belongs to it. (01m.)
- (B) An instrument used to observe organisms which are not visible to naked eye is given below.



- (i) What is this instrument? (01m.)
 - (ii) Write the relevant letter of the part of the instrument which performs following functions.
 - a) Keeping the slide of the specimen.
 - b) Focuses light on to the diaphragm (02m.)
 - (iii) When the specimen is observed through microscope it is mentioned as the magnification of eye piece is x7 and magnification of objective is x40. Find the magnification power of the microscope. (01m.)
- (C) An apparatus used to study the human respiratory system is given below.



- (i) Which parts of human respiratory system are indicated by A and B?
 - a) A -
 - b) B - (02m.)
- (ii) Write the change occurs when structure D is pulled downwards? (01m.)

(Total marks - 11)

Answer Paper - Part I

01. (4) 02. (4) 03. (2) 04. (3) 05. (1) 06. (3) 07. (2) 08. (4) 09. (2) 10. (4)
11. (1) 12. (2) 13. (1) 14. (1) 15. (3) 16. (3) 17. (3) 18. (2) 19. (1) 20. (4)

(2 x 20 = 40 marks)

Part II

01. A. (i) x - Plant leaves y - Stem (02m.)

- (ii)  (01m.)

- (iii) Q and R (If two letters are correct) (01m.)

- (iv) a - Plant A (01m.)

b - As there are 5 petals in the flower / Branched (If any feature of dicot plant is written give marks) (01m.)

- (v)  (01m.)

- (vi) Neutral (01m.)

- B (i) Fish (01m.) (ii) As a medium of life / solvent property (01m.)

- (iii) a - Camouflage / As taken the shape of guava leaf (01m.)

b - Streamlined body shape (01m.)

- (iv) To catch the pray easily / To protect from predetors (any correct answer) (01m.)

- (v) a - Without fins b - Fish c - Butterfly (03m.) (total marks - 16)

- 02 A - (i) Solution A (01m.)

- (ii) a - Red b - Blue (02m.)

- (iii) Indicators (01m.)

- (iv) a - Vinegar, Lime juice, Mango (any correct answer) (01m.)

b - Sodium hydroxide, Pottasium hydroxide, Calcium hydroxide any correct answer (01m.)

- (v) Solvent property (01m.)

- B - (i) Q thermometer (01m.)

(ii) Bulb of thermometer Q is wet with water / As there is water (01m.)

(iii) Coolant property (01m.)

(iv) To keep the body temperature constant / As the body gets cooled (any correct explanation) (01m.) (total marks 11)

03. A - (i) Chemical energy (01m.)

(ii) Kinetic energy → Potential energy (01m.)

(iii) a - (ii) instance

b - (iii) instance (02m.)

(iv) a - Light energy (01m.)

b - Solar panel / Solar cell (01m.)



- B - (i) a - Crust - Green colour clay

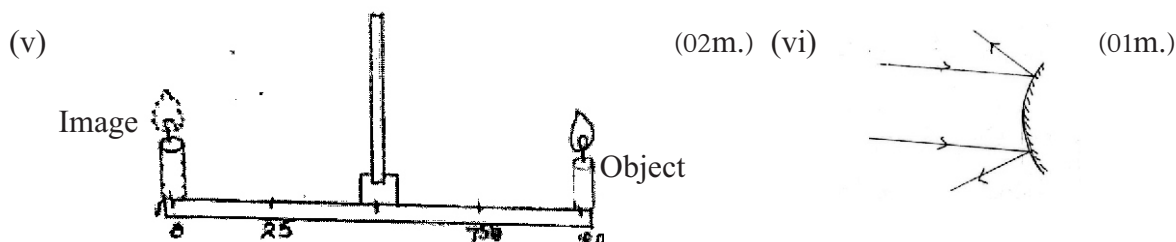
b - Mantle - Red colour clay

c - Core - Yellow colour clay (03m.)

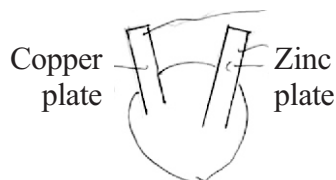
- (ii)  (01m.)

- (iii) Crust (01m.)

04. (i) Light reflection (01m.)
 (ii) a -  b -  (02m.)
 (iii) Opaque nature (01m.)
 (iv) Towards the wall (01m.)



- B (i) B,E,F,G (02m.)
 (ii) Can view a larger area in small size (01m.) (total marks 11)
 05. A (i) a - Sources of electricity b - Chemical process c - Dynamo d - Solar cells (04m.)
 (ii)



(02m.)

- B - (i) Electromagnetic induction (01m.)
 (ii) Vibrates (01m.)
 (iii) Lights up on and off (01m.)
 (iv) A battery / a dry cell (01m.)
 (v) Increase the power of magnet / Increase the turns of coil (01m.)
 (total marks 11)
 06. A - (i) Attraction of pieces of papers to the comb (01m.)
 (ii) Static electrical charges (01m.)
 (iii) William Gilbert (01m.)
 (iv) Occurrence of thundering (01m.)
 B (i) Charging (01m.)
 (ii) Discharging (01m.)
 (iii) To positive terminal (01m.)
 (iv) Battery (01m.)
 C (i) By vibrating vocal cords in larynx (01m.)
 (ii) Medium is necessary to propagate sound. In the space there is no medium. So sound can not be heard. (02m.) (total marks 11)
 07. A (i) To digestive system (01m.)
 (ii) A - Esophagus B - Stomach C - Small intestine D - Large intestine (02m.)
 (iii) Root system - Tap roots / Lateral roots
 Shoot system - Flowers, Branches, Stem, Leaves (01m.)
 B (i) Microscope / Compound microscope / Light microscope (01m.)
 (ii) a - E b - D (02m.)
 (iii) Magnification power = Magnification of eye x Magnification of objective

$$= \frac{7}{280} \times 40$$
 (01m.)
 C (i) A - Trachea B - Lungs (02m.)
 (ii) Balloon gets inflated (01m.) (total marks 11)