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Second Term Test - Grade 07 - 2024

Science

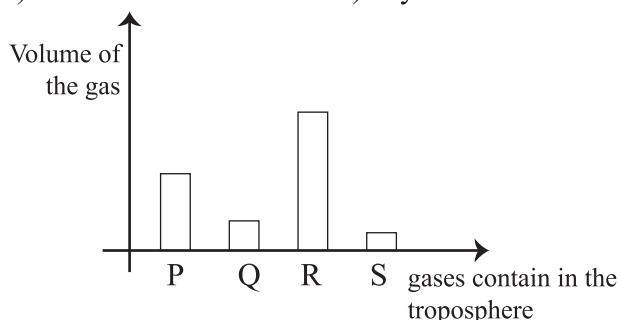
Time : 2 Hours

Name/Index No. :

- Answer all the question
- Underline the most suitable answer

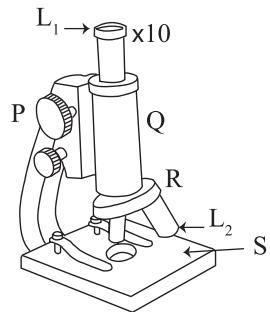
Part - I

- A plant stores food in roots.
i) Ginger ii) Carrot iii) Turmeric iv) Potato
- A plant stores water in plant leaves,
i) Tamarind ii) Jak iii) Cahew nut iv) Akkapana
- An animal having skin colour blend with the environment to protect from predators,
i) Grasshopper ii) Beetle iii) Cockroach iv) Centipede
- Not an instance where it is separating materials dissolved in water
i) Produce treacle from sweet toddy ii) Produce salt from sea water
iii) Produce vinegar from coconut water iv) Produce sugar from juice in sugar cane
- The energy use to increase the temperature of a PVC tube
i) Heat energy ii) Kinetic energy iii) Chemical energy iv) Light energy
- Correct statement on the solar energy.
i) Electricity can be produced by a solar cell in a dark place
ii) Solar cell has a positive terminal and negative terminal
iii) The electricity produced by a solar cell can not be stored in a battery.
iv) Solar cell can not be use to drive vehicles.
- The common cavity of the digestive tract and the respiratory system
i) Oesophagus ii) Larynx iii) Pharynx iv) Tracheo
- What is the substance that change the colour of red litmus into blue?
i) Vinegar ii) Goraka iii) Sodium bicarbonate iv) Salt water
- The instrument converts kinetic energy to electrical energy
i) Winding table clock ii) Electric fan iii) Electric bell iv) Dynamo
- This graph shows the percentage of gases in the atmosphere. What is the letter represent the oxygen gas contain in the troposphere?
i) P ii) Q iii) R iv) S



11. Select the correct statement on the following figure of compound microscope

- i) L_1 is the objective lens and L_2 is the eyepiece
- ii) P rotates the objective lens
- iii) R adjusts the body tube
- iv) The specimen is kept on the S



12. Consider the following statements

- A - Flute produces sound by vibrating air column
- B - The speed of sound travels through solid, liquid and gaseous media are same
- C - The sound of birds is a natural sound

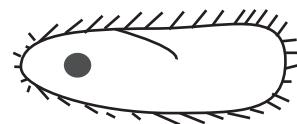
Correct statements are,

- i) Only A
- ii) Only A and C
- iii) Only B
- iv) A, B, C all

13. Below shows a micro-organism observed in a water sample of rotten hay.

The organizational level this organism belongs to,

- i) Cell
- ii) Tissue
- iii) Organ
- iv) System



14. An instance where it is using electro static charges

- i) Producing electricity by a simple cell
- ii) Rotating a motor using a drycell
- iii) Lighting a bulb by a dynamo
- iv) Operating a photo copy machine

15. The amount of electrical charges that can be stored in a capacitor is measured in

- i) Ohm
- ii) Farad
- iii) Amphere
- iv) Volt

16. Select the correct statement

- i) Tectonic plates float on the molten rocks
- ii) Tectonic plates end at the lower boundary of the earth's crust
- iii) Tectonic plates are not moving
- iv) Core of the crust is moving with the tectonic plates

17. Select the answer consists only the equipments that produce electricity by a chemical process.

- i) Dry cell, Solar cell, Simple cell
- ii) Dry cell, Car battery, Simple cell
- iii) Dry cell, Car battery, Dynamo
- iv) Dry cell, Solar cell, Generator

18. Correct statement on the periscope,

- i) Periscope contains three plane mirrors
- ii) Periscope is suitable to observe night sky
- iii) Periscope uses the reflection of light by curved mirrors
- iv) Periscope can be used to observe incidents that occurs in a higher level

19. Select the correct statement below

- i) Animals have disadvantages of camouflage
- ii) Animals have no benefits from their body shape
- iii) Some kinds of lizards change their colour according to the environment they live
- iv) Animals can not adapt to their environment

20. It should not be done at a climate with severe hot,

- i) Drink more water frequently
- ii) Rest under a cool shelter
- iii) Play in the playground
- iv) Wear white colour cotton clothes.

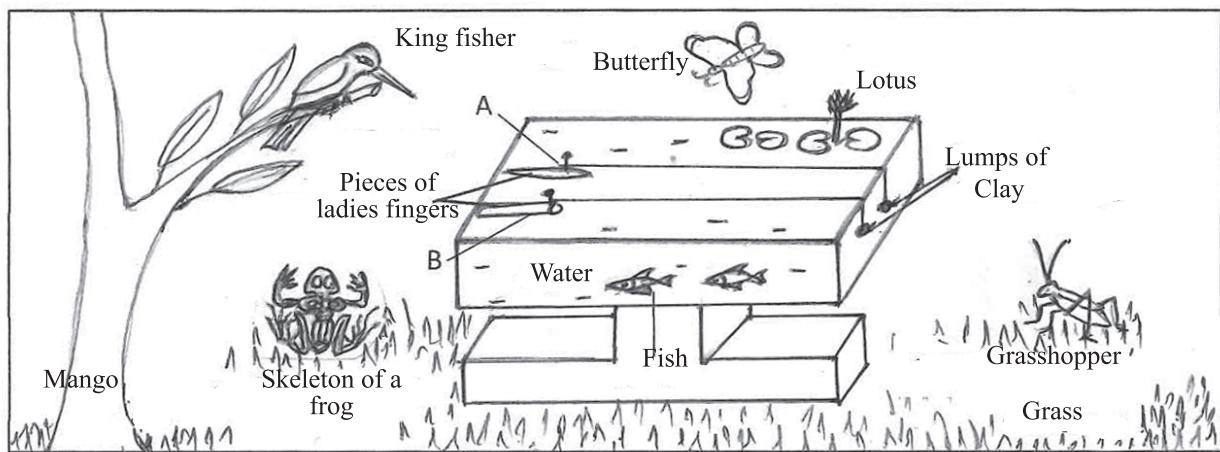
Part - II

Instructions:

- First question is compulsory
- Answer 4 questions out of 6 questions
- Use separate sheet to write your answers
- 16 marks allocated for the first question and 11 marks for the remaining questions

01. A. Diagram below is a set up created by two students in grade 7; using a fish tank to follow an activity that they were learnt at school.

Answer the following questions related to below diagram.



(i) From the structures A and B which does reach the end of the fish tank faster than the other? (1 mark)

(ii) What is the name used for the shape of the above mentioned structure that helps to move faster? (1 mark)

(iii) Name an animal in the diagram having the shape similar to the structure A (1 mark)

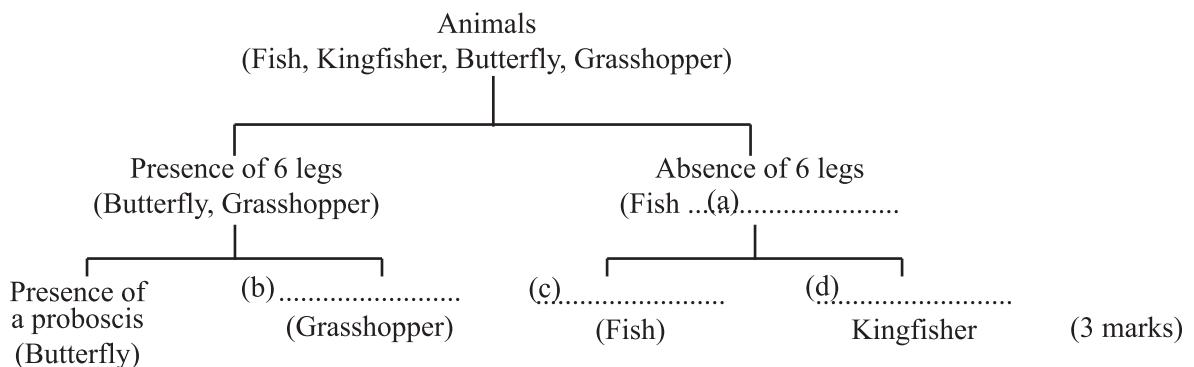
(iv) Name an aquatic flowering plant in this diagram (1 mark)

B. (i) Students observed the backbone in the skeleton of a frog found near the fish tank.

(a) What is the name used for the animals with a backbone (1 mark)

(b) Name two animals without a backbone in the above diagram (2 marks)

(ii) Write down the suitable words on your answer sheet for the blanks in the given dichotomous key



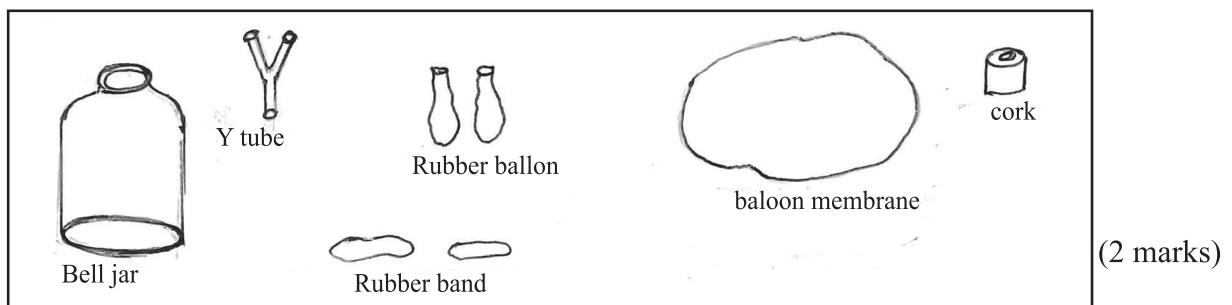
C. (i) Select the correct words for the blanks from the given words in the brackets.
(Organ, Stomach, Small intestine, Cell, lungs, large intestine)

The basic structural and functional unit of the life is the (a)..... A collection of different tissues worked together to form a (b)

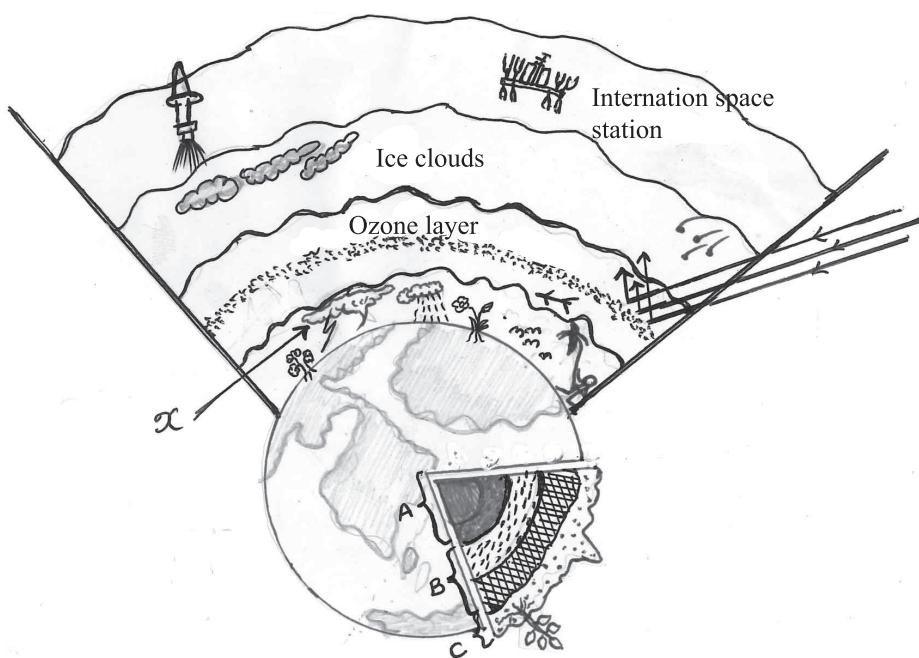
The organ (c)..... belongs to the digestive system is a muscular sac. Absorption of water from the digested food is done by (d).....

(4 marks)

(ii) Draw a diagram of a suitable model to demonstrate the respiratory system using below substances.



02. Given below is a linear diagram showing the nature of the atmosphere and the nature of the earth.



A. (i) Name the atmospheric layer where the International space station is situated (1 mark)

(ii) The cumula nimbus clouds take shape as an anvil. What is the reason for that? (2 mark)

(iii) To which layer of the atmosphere that enters the rocket next in the picture? (1 mark)

(iv) What can be seen in the coldest atmospheric layer in the picture? (1 mark)

(v) Atmosphere is divided into five layers based on the difference of some factors. What is the main factor among them. (1 mark)

B. (i) Name the A and B layers of the earth (2 marks)

(ii) Write the English letter of the earth layer relevant to the below description

- a. Consists of rocks and soil (1 mark)
- b. The layer consists molten iron and nickel metals (1 mark)

(iii) Which layer of the boiled egg corresponds with the layer C in the figure? (1 mark)

03. A. Two activities done by grade 7 students are given below

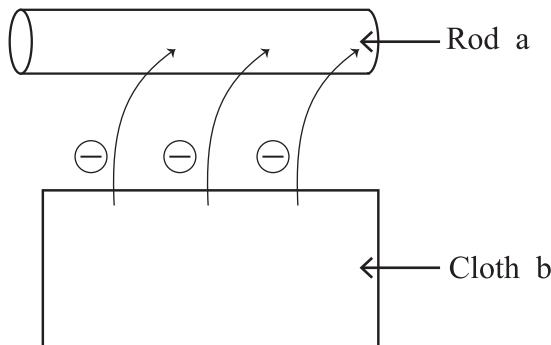
Activity A : Rub a plastic comb against the dry hair and hold the comb close to the pieces of paper

Activity B : Connect a motor with a fan to the terminals of a bicycle dynamo.

(i) State an observation given at the activity (A). (1 mark)

(ii) What are the charges generated on the surfaces of objects by rubbing. (1 mark)

(iii) Negatively charged particles remove from cloth b and transfer to the Rod a. What is the type of electrical charge on the Rod a



(1 mark)

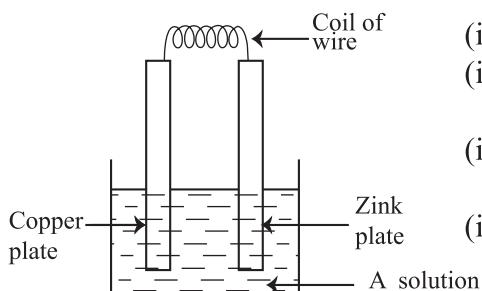
(iv) Hang a glass rod rubbed with silk and bring the Rod 'a' towards the glass rod. What is your observation (1 mark)

(v) State the observation at Activity 'B' (1 mark)

(vi) What is the principle applied in the generation of electricity in a bicycle dynamo. (1 mark)

(vii) State a difference between the current produced by the dynamo and the drycell (1 mark)

B. Following diagram shows the way of connecting a coil of wire to a simple cell.



(i) Name the solution 'A' in the diagram (1 mark)

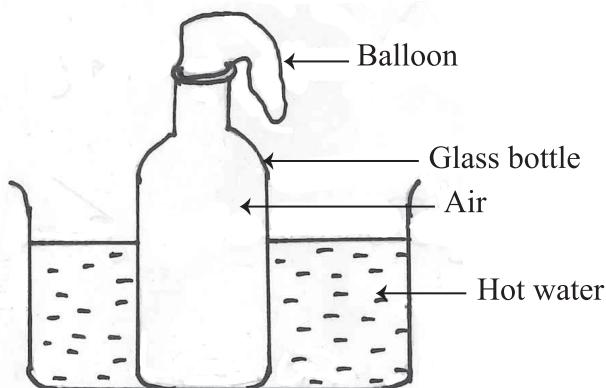
(ii) State the change of coil of wire proves that it is producing an electric current in this setup (1 mark)

(iii) Name another equipment that can be used here to detect the flowing of electric current through this set up (1 mark)

(iv) Mention a weakness of simple cell (1 mark)

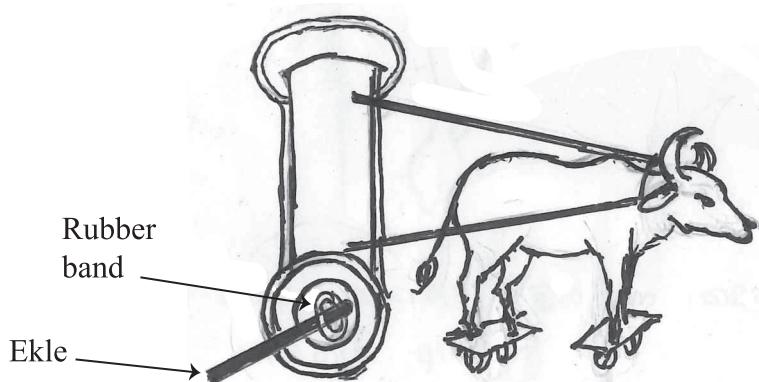
(11 marks)

04. A. Various changes of the substances are done by heat. Following activity shows such instance.



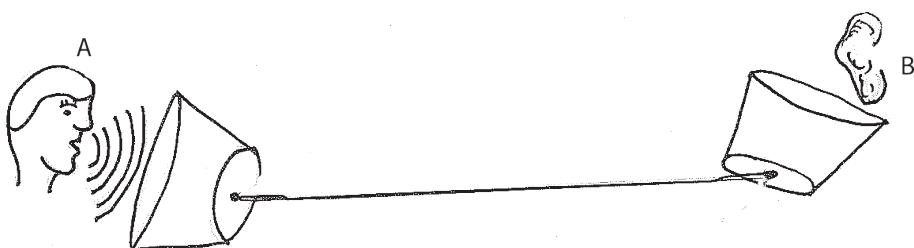
- (i) What is the observation given after few minutes? (1 mark)
- (ii) Name the type of energy caused for the above observation (1 mark)
- (iii) What is the change that happens to the air inside the glass bottle? (1 mark)
- (iv) Name 2 processes occur due to heat energy given by the sun (2 mark)

B. Following diagram shows a toy cart. After the wheel of the toy it is moving forward.



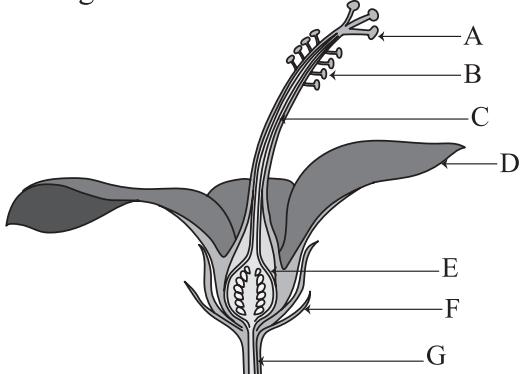
- (i) What is the type of energy stored in the rubber band when winding it? (1 mark)
- (ii) State the energy transformation that occurs when the toy cart is moving (1 mark)

C. Following diagram shows a toy telephone.



- (i) What is the medium that transmits sound from A to ear of 'B' person? (1 mark)
- (ii) What is the part of the body vibrates when producing vocal sound of a person? (1 mark)
- (iii) Explain what is propagation of sound. (2 marks)

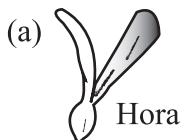
05. A. Longitudinal section of a shoe flower is given below.



(i) Write the letters of the parts belong to gynoecium (1 mark)

(ii) What is the function of D? (1 mark)

(iii) Name the dispersal method of following fruits and seeds. (2 marks)



(iv) Roots and stem of different plants are adapted to perform different types of functions.

(a) Name a plant with a storage stem

(b) State the function of the green coloured stem of the cactus

(c) Name a plant with stilt roots

(d) What is the function of respiratory roots? (4 marks)

B. Water is a limited resource

(i) Name two substances well dissolve in water (1 mark)

(ii) State a property of water except solvent property (1 mark)

(iii) State the method of separating salt from a salt solution (1 mark)

06. Two groups of students A and B were provided following domestic acids and bases.

Group A

- lime juice ● Bilin juice
- Vinegar ● Tomato juice

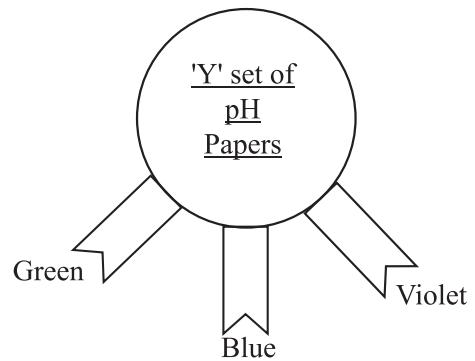
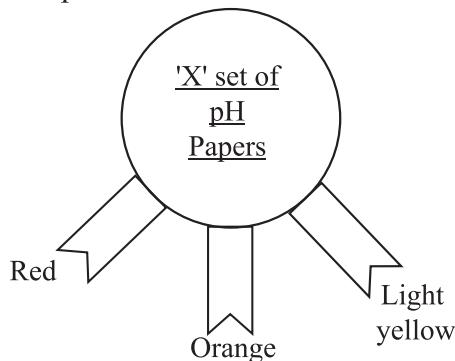
Group B

- Soap water ● Ash dissolved water
- Sodium bicarbonate ● Lime water

A. (i) Give a common name for the substances given to the group A. (1 mark)

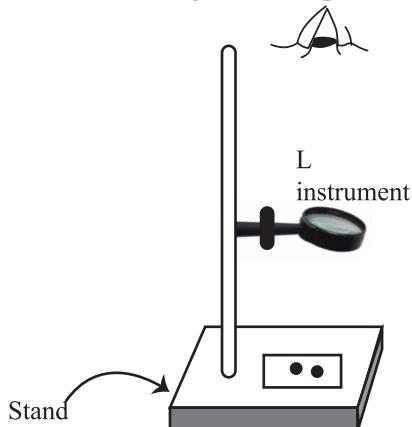
(ii) Name a laboratory substance found as white color plates which has the similar properties to substance used by group B. (1 mark)

(iii) pH papers were provided to group A and group B. Different colours were given when adding pH papers to the provided substances.



(a) What is the set of pH papers X of Y used by group A? (1 mark)
 (b) What is the colour of pH paper in the set Y having the highest value of pH (1 mark)
 (iv) (a) It is mixed betel, areconout, and lime what is the colour of the mixture given after grinding and adding water? (1 mark)
 (b) What is the indicator in this mixture? (1 mark)

B. Following is a set up use to obtain higher magnification

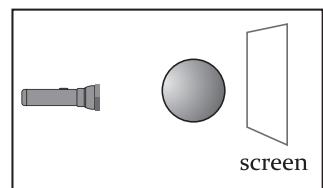


(i) What is the type of lens used as L in this set up? (1 mark)
 (ii) The distance between two dots is increased by this L instrument. Is it higher than or less than 0.1mm (1 mark)
 (iii) (a) What is the optical instrument can be used to observe a plant cell at the laboratory? (1 mark)
 (b) How many convex lenses used in this instrument? (1 mark)
 (c) State a factor to be considered when this instrument is not used for a long period of time? (1 mark)

07. A. Formation of an Image and umbra are two phenomena related light

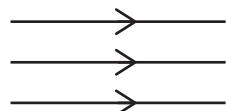
(i) Select and write the word from Image and umbra describes in the below sentences.
 (a) Formed due to reflection of light (1 mark)
 (b) Formed when passing light through on opaque substance (1 mark)

(ii) Following setup is arranged to demonstrate the formation of umbra.
 Draw the shape of the umbra formed on the screen when the electric torch is kept at closer to the ball. (2 mark)

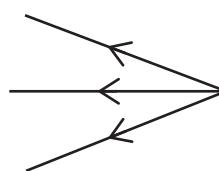


(iii) To obtain a clear sharp umbra, what should be done to the distance between the ball and the torch. Should it be increased or decreased? (1 mark)

B.



(P)



(Q)

(i) (a) Name the types of P and Q beams of lights (1 mark)
 (b) What is the type of mirror that can be used to convert P light beam into Q type of light beam? (1 mark)

(ii) State a feature of an image formed by a plane mirror (1 mark)

(iii) Name the type of mirror used in the below instance (1 mark)
 (a) To construct solar cookers
 (b) Use as side mirrors of the vehicles
 (c) To construct kaleidoscope (1 mark)