

Grade 07

Third Term Test 2024

34

E

I,II

Index no

Science I

Time : 03 hours

Part I

• Underline the most suitable answer

01. Which of the following leaves is a compound leaf?

1.



2.



3.



4.



02. A Substance that dissolves well in Water

1. Tumeric powder

2. Kerosene

3. Wax

4. Salt

03. The most suitable instrument to observe virus,

1. Electron microscope

2. Hand lens

3. Light microscope

4. Magnifying lens

04. Below are some nutrients that a balance diet contains

Carbohydrates

Protein

Lipid

x

y

Here the x and y nutrients are,

1. Water and vitamins

2. Water and minerals

3. Vitamins and minerals

4. Vitamins and fibers

05. The coldest layer among the layers of the atmosphere,

1. Troposphere

2. Mesosphere

3. Stratosphere

4. Thermosphere

06. Sound travels faster,

1. Through water

2. Through the space

3. Through air

4. Through a metal rod

07. Choose the most suitable word fits the blank and underline it.

..... it is the smallest particle in the soil according to the size.

1. Silt

2. Clay

3. Sand

4. Hard sand

08. The answer containing only neutral substances,

1. Lemon, Lime water, Kerosene

2. Kerosene, soap water, vinegar

3. Salt solution, Kerosene, Sugar solution

4. Water, Salt solution, Lime water

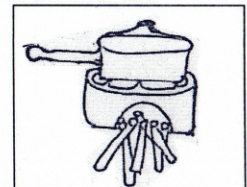
09. As shown in the diagram, the source of energy and the form of energy used to cook food are mentioned respectively in,

1. Steam - light energy

2. Hearth - heat energy

3. Bio mass - heat energy

4. Fire wood - light energy



10. The inner layer of the earth can be compared to the replica of a boiled egg.

A - The shell of the egg represents that the crust is the thinnest layer

B- Egg yolk represents the mantle

C - White yolk represents the core

True statement/ Statements are,

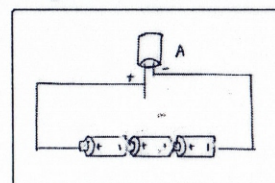
1. only A

2. Only B

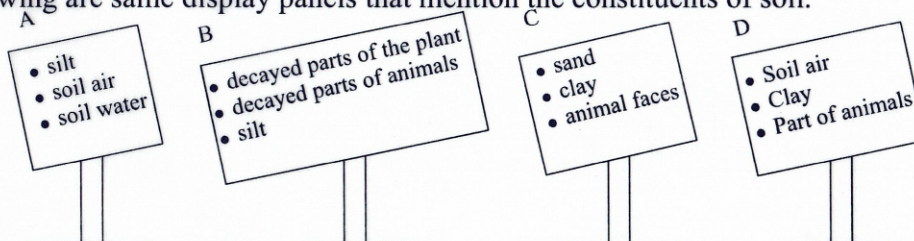
3. Only C

4. Only B and C

11. True statement about the location of human body organs,
 1. Pharynx is the common cavity of the digestive tract and respiratory tract
 2. Anus is the terminal end of the small intestine
 3. Larynx located between the trachea and bronchus.
 4. Oesophagus located between the stomach and small intestine .
12. Select the true statement on force.
 1. International unit of measuring force is kilogram
 2. Pulling or pushing is known as applying a force
 3. Force has a magnitude but has no definite direction
 4. Always, an object can be moved by applying a force.
13. The constant temperature at which liquid changes to its gaseous state is called,
 1. Boiling point 2. Melting point 3. Density 4. Freezing point
14. Following diagram shows an appliance that can store static electric charges. Which answer shows the device and its action correctly.
 1. Diode-Charging
 2. Capacitor - Charging
 3. Diode - discharging
 4. Capacitor - discharging

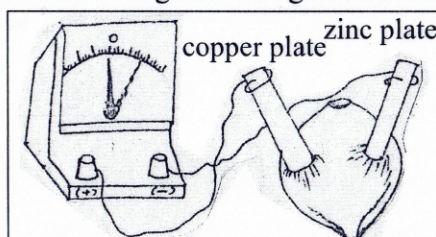


15. What can be used to get an inverted real image
 1. Plane glass 2. Plane mirror 3. Concave mirror 4. Convex mirror
16. Following are same display panels that mention the constituents of soil.



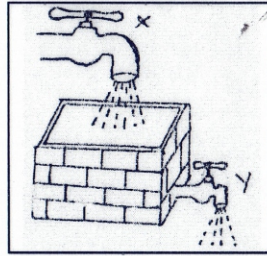
Essential solid components that are most suitable to prepare a loamy soil are given in
 1. A and B panels 2. B and C panels 3. C and D panels 4. B and D panels

17. Not an instance where the body colour is useful for the existence.
 1. To protect from predators
 2. To find prey easily
 3. Surviving according to changes in the environment
 4. Helps to locomote efficiently against air resistance
18. Select the correct observation related the given change of this setup.



Change	Expected Observation
1. Remove the copper plate and replace it with a zinc plate	The indicator moves sideways
2. Send the two plates more into the lime	The amount, the pointer moves increases
3. Touch the two plates inside the lime	The amount the pointer moves increases
4. Exchange the connecting wires connected to the galvanometer	Change the direction of movement of the indicator

19. Following is an activity carried out to identify renewable and non-renewable energy sources.



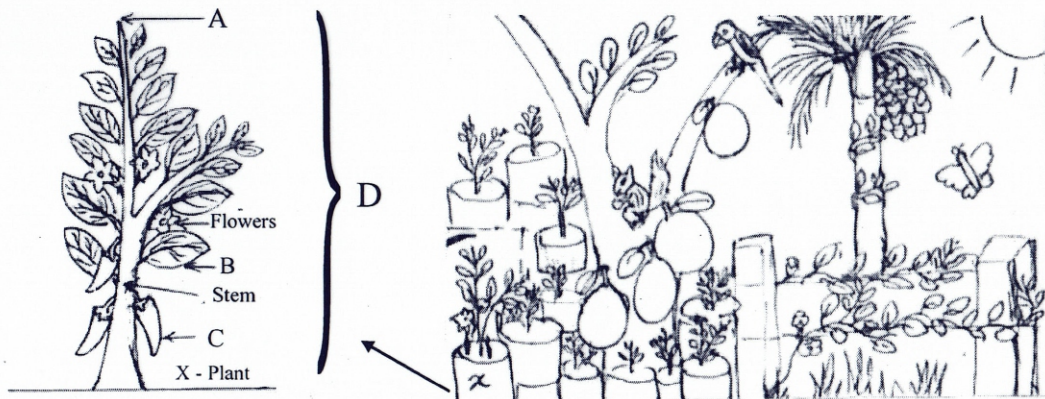
Select the answer which includes the observation and the correct concept when both taps X and Y are opened at the same time.

- | | |
|--|--------------------------------------|
| 1. The tank is gradually filled with water | - Like a non-renewable energy source |
| 2. The tank gradually with water | - Like a renewable energy source |
| 3. Water in the tank decreases gradually | - Like a renewable energy source |
| 4. The water in the tank decreases gradually | - Like a non-renewable energy source |
20. Reason for increasing the non-communicable diseases such as diabetes and cancer in the society
- | | |
|---|------------------------|
| 1. Eat vegetables, grains frequently | 2. Exercising daily |
| 3. Increasing the consumption of foods with artificial sweeteners | 4. Drinking more water |

Part II

- First question is compulsory
- Answer only four questions out of the remaining six questions
- Use separate paper to write the answers
- The first question carries 16 marks and each other questions are given 11 marks

01. A. The figure below shows a diagram drawn by a grade seven student who went on a field trip to a plant nursery and observed the environment (Plan 'x' is drawn enlarged)
Answer the questions according to this diagram.



- What letter indicates the fruit of the plant 'x'? (1mark)
 - Which plant structure is best adapted for photosynthesis? (1mark)
 - Write the name of plant 'x' according to following characteristics (1mark)
 - Posses flowers or not (1mark)
 - According to the number of cotyledons in the seed (1mark)
 - Draw a diagram of the root system of the plant named as 'x' (1mark)
 - Name a plant with the root system that you drawn in (a) (1mark)
 - From the organization level of life which level does the part named as D belong to? (1mark)
- B. i. Below is a flower that was brought to class to extract the juice to separate the acids and bases.
- Name P and Q parts here (2mark)
 - Name a plant can be used here (1mark)
- ii. By which method does heat transfer from the sun to the earth? (1mark)

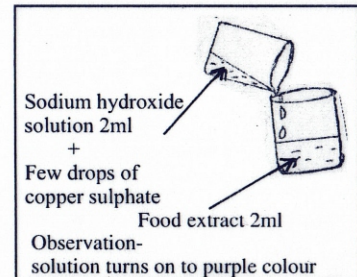


- iii. Classify the following animals found while observing the environment according to a dichotomous key (Squirrel, Butterfly, Parrot) (2mark)

C. Below is a table on the nutrients in food

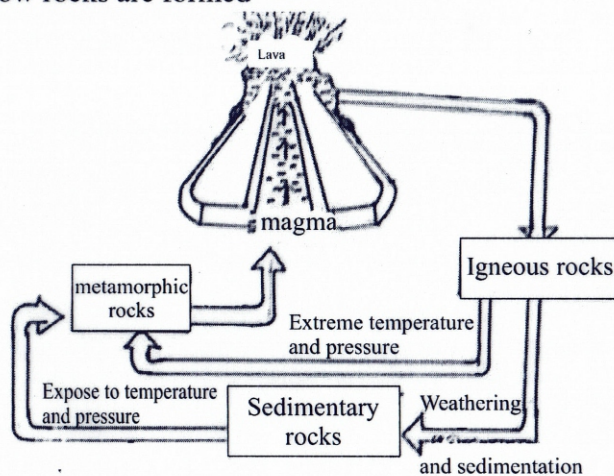
Type of nutrient	Carbohydrate	protein	Lipid
Food in abundance	x	dhal	Y

- Among coconut and sweet potato which food fits in position 'x'? (1mark)
- Figure below shows an activity to identify a nutrient?
 - Which of the above three types of food is most suitable to make this food solution (1mark)
 - What is the conclusion here (1mark)



(Total marks 16)

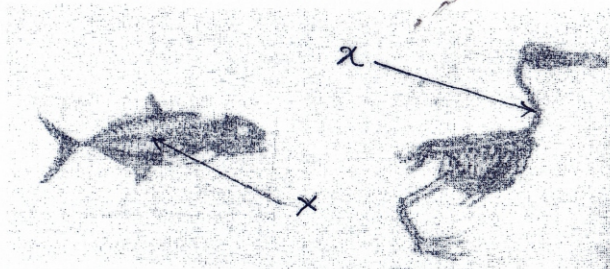
02. A. As a result of volcanic eruptions, magma flows out on to the earth surface. Following is a rough diagram shows how rocks are formed



- Name an element that comes to the surface of the earth with lava. (1mark)
 - What is the layer of the inner part of the earth where magma is located? (1mark)
 - Select and write two types of rocks that become metamorphic rocks from the diagram (1mark)
 - Which type of rock matches the following descriptions
 - Shows the highest hardness
 - Formed by deposition at the bottom of the sea or river
 (2mark)
 - Write a difference between rocks and minerals that can be observed with the naked eye (1mark)
 - Mention a strategy that can generate more income instead of importing Apatite mineral abroad (1mark)
- B. Soil is created by the weathering of rocks.
- What kind of weathering takes place from solar heat? (1mark)
 - Draw a labeled diagram of the activity you did to find out that soil contains water (2mark)
 - Write the three main areas that can be identified in a soil profile (1mark)

(Total - 11marks)

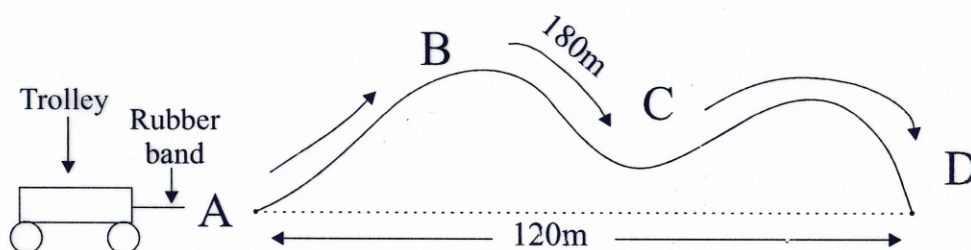
03. A. Below are diagrams showing the skeletal systems of two animals



- What is the structure shown here as 'x'? (1mark)
- Animals with 'x' structure are called by what name (1mark)
- Write an example of an animal that does not have 'x' structure (1mark)
- Write the appropriate words for the blanks a and b related to the animals given below

Animal	Characteristic	Known name
Fish	The shape used for swimming by overcoming the resistance of the water	a
Butterfly	Difficulty to identify separately from their surroundings due to blending the body colour to particular environment	b

B. (2marks)



A trolley connected by a rubber band was pulled along the road ABCD as follows.

- step one - Load a weight of 5N
- step two - Load a weight of 10N

- What difference can be observed in the rubber band in the step two than in the step one? (1mark)
- Give the reason for the change you mentioned in the above answer (1mark)
- What instrument can be used to measure weight in the activity (1mark)
- Write an example where force can change the direction of an object (1mark)
- What is the displacement of the trolley in moving from A to D (1mark)
- State the difference between distance and displacement (1mark)

(Total - 11marks)

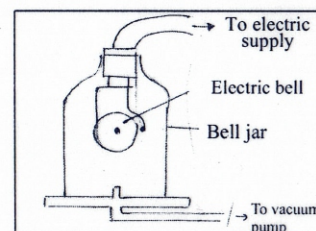
04. A. The following table shows the observations obtained by adding two indicators in the laboratory in equal volumes of three colourless solutions as A, B and C

Indicator	Solution A	Solution B	Solution C
Phenolphthalein	Colourless	Colourless	Pink
Methylorange	Yellow	Red	yellow

- i. Based on the observation identify and write whether A and C are an acid, a base or a neutral substance A- C- (2mark)
 - ii. Name a chemical that can be used as B solution in the laboratory (1mark)
 - iii. Explain why a curry on a cloth turns red when it washed with soap (1mark)
- B. Life functions well occur in both multicellular organisms like human and organisms like amoeba.
- i. What is the structural and functional unit of life (1mark)
 - ii. Write a major function of human digestive system (1mark)
 - iii. Draw one organ of the digestive system and name it (1mark)

C. Below is a diagram of an activity related to sound.

- i. How does it make the sound of the electric bell here? (1mark)
- ii. First connect the electric bell in the bell jar to the power supply and remove the air in the bell jar completely while observing it. Write



down the observation you get in the cases below.

- a) When the air is filled in the bell jar
- b) When the air is completely removed in the bell jar
- iii. What can be concluded at the end of the activity

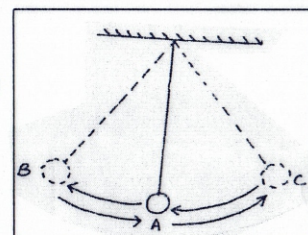
(2mark)

(1mark)

11 mark

05. Energy is expended in moving object by pushing or pulling

- A.
- i. Write the international standard unit of measuring energy (1mark)
 - ii. Which form of energy helps operating following devices (2marks)
 - a) Solar cell
 - b) Thermometer
 - iii. The diagram below shows an object moving sideways

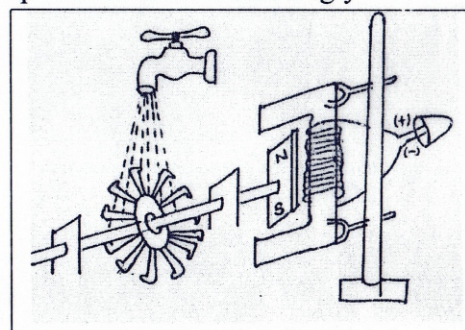


Copy the table below and write the words 'maximum' or 'minimum' that best fits the blank (2mark)

Position of the object	potential Energy	Kinetic Energy
A		
B and C		

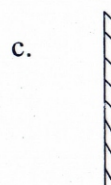
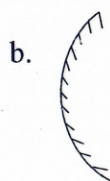
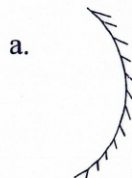
B. Below is a setup found at a science exhibition. Answer the questions asked accordingly

- i. What renewable energy source is used to operate this set up? (1mark)
- ii. Write two observation you get during the operation of this set up. (2mark)
- iii. write the name for the generation of electricity in a conductor when magnetic field is cutting with the conductor? (1mark)
- iv. The bulb was removed and the Galvanometer was connected. Then write the conclusion that can be drawn based on the observation (1mark)
- v. It is beneficial to generate electricity in this way as mentioned above. Write a reason that could cause it (1mark)



(Total - 11 Marks)

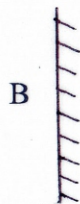
06. Following are three types of mirrors. Answer the questions asked accordingly.



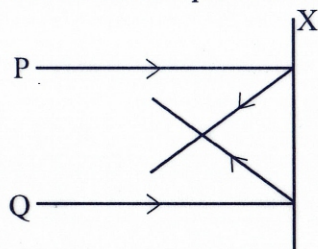
- i. Select the type of mirror used in the instances given below
 - a) Use as side mirrors of vehicles
 - b) Use to construct kaleidoscopes

(2marks)

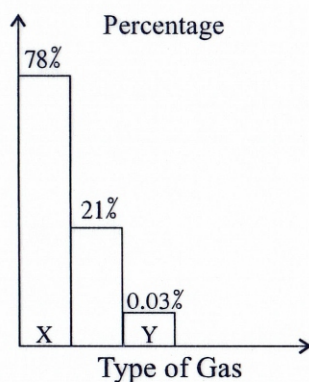
- ii. Draw on your answer sheet how the reflection of the letter 'B' looks like placed in front of the mirror.



- iii. Which of the A, B, C is more suitable to place at 'x' point to reflect P and Q rays as shown in the diagram (1mark)



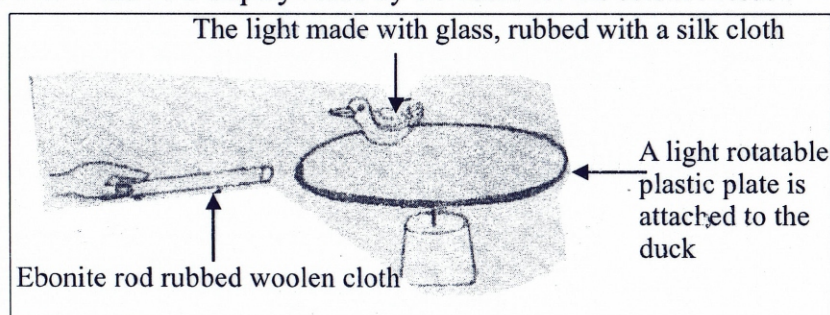
- B. i. Draw a diagram of the type of lens used in a compound light microscope. (1mark)
 ii. The magnification of the objective lens was $\times 40$ and the magnification of the eye piece was $\times 5$ find the magnification of the microscope (2mark)
- C. The figure below shows the composition of gases in the atmosphere that are importance for living things.



- i. Name the types of gas x and y here (2mark)
 ii. Name the atmospheric layer wheremost of these gases are present (1mark)
 iii. Write an advantage of atmosphere (1mark)

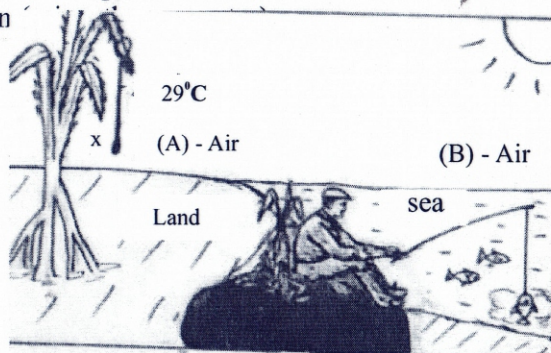
(Total 11 marks)

07. A. The image below shows a display made by a student for his science lesson



- i. What can be observed when the ebonite rod rubbed with woolen cloth is brought towards the duck? (2mark)
 ii. What is the reason for the observation mentioned at (1)? (1mark)
 iii. What is the observation when a glass rod rubbed with silk is brought towards the duck? (1mark)

- B. The image below is a phenomenon that occurs in the environment due to heat transformation


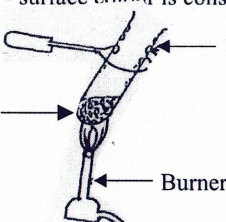


- i. In which direction does the air flows here? (1mark)
 - ii. Briefly explain why air flows in the direction you mentioned above. (2mark)
 - iii. What is the temperature of the (A) air contained in this environment? (1mark)
 - iv. The fisher man says that he feels more warm because he is wearing a black suit.
 - a) What is the reason for this (1mark)
 - b) He was immersed in water to reduce body heat. what property of water has been used here? (1mark)
 - v. Write an instance where water is used as a medium of life. related to above figure (1mark)
- (Total -11marks)

Science
Marking Scheme
Grade 07
Part I

Q. no	Ans	Q. no	Ans	Q. no	Ans	Q. no	Ans
1	1	6	4	11	1	16	2
2	4	7	2	12	2	17	4
3	1	8	3	13	1	18	4
4	3	9	3	14	2	19	2
5	2	10	1	15	3	10	3

Part II

01. A. i. C (1mark)
 ii. B/plant leaf (1mark)
 iii. a) flowering (1mark)
 b) Dichot plant (1mark)
 iv. a)  for correct taproot system (1mark)
 b) chilli, jacketc (for a correct answer) (1mark)
 B. i. a) P-stima Q- Anther (2mark)
 b) Shoe flower, Nilkatarolu..... etc. (1mark)
 ii. By radiation (1mark)
 iii. For correct dichotomous key (2mark)
 C. i. Sweet potato (1mark)
 ii. a) dhal (1mark)
 b) Food extract contains protein (1mark)
 (total =16 marks)
02. A. i. Iron/Nickel..... (1mark)
 ii. Core (1mark)
 iii. Igneous rocks, sedimentary rocks (1mark)
 iv. a) Igneous rocks (1mark)
 b) Sedimentary rock (1mark)
 v. Rocks - surface colour is not constance / Minerals - surface colour is constance (1mark)
 vi. Produce chemical fertilizer (1mark)
 B. i. Physical weathering (1mark)
 iii. top soil, sub soil, bed soil (2marks)
 ii.  (1mark)
03. A. i. Vertebral column/ Backbone (1mark)
 ii. Vertebrates (1mark)
 iii. A correct example for invertebrates (1mark)
 iv. a) Streamlined body shape (1mark)
 b) Camouflage (1mark)
 B. i. Rubber band is stretched more (1mark)
 ii. It is applying a force at step two more than step one (1mark)
 iii. Newton spring balance (1mark)
 iv. For a suitable answer (1mark)
 v. 120m (1mark)
 vi. Distance has no definite direction but displacement has a definit direction (1mark)
04. A. i. A- Neutral C- Base (1mark)
 ii. HCl, H₂SO₄, HNO₃ etc. (2mark)
 iii. Soap is a base. turmeric in curry is an indicator. Tumeric changes colour in to red with bases. (1mark)
 B. i. Cell (1mark)
 ii. Digestion of food (1mark)
 iii. For correct diagram and correct name (1mark)
 C. i. By vibrating the electric bell (1mark)
 ii. a) Can hear the sound of the bell (1mark)
 b) Can not hear the sound of the bell (1mark)
 iii. A medium is essential for propogation of sound (1mark)
05. A. i. Joule/ J (1mark)
 ii. a) Solar energy/ light energy (1mark)
 b) Heat energy (1mark)

3.	Position of the object	Potential energy	Kinetic energy
	A	minimum	maximum
	B and C	maximum	minimum

(2marks)

- B.
1. Energy stored in flowing water
 2. Rotating the turbine
Rotating the dynamo
Blinking the LED For two observation
 3. Electro magnetic induction
 4. The indicator moves both sides
 5. No environmental pollution

(1mark)

(2mark)

(1mark)

(1mark)

(1mark)

11 marks

06. A
1. a) b / Convex mirror
 - b) C / plane mirror

(1mark)

(1mark)

2. ∞

(1mark)

3. Concave mirror

(1mark)

- B.

(1mark)

- 1.
2. Magnification = magnification of the x magnification of the objective lens
= 5×40 = $\times 200$

(2mark)

- C.
1. x- Nitrogen
 - y- Carbondioxide

(2mark)

2. troposphere

(1mark)

3. Help for respiration for combustion etc. only suitable answer

(1mark)

07. A.
1. The duck moves towards the ebonite rod/ attracts

(1mark)

2. Duck and Ebonite rod charged with different/ unlike charges

(2mark)

3. Duck is moving opposite direction / Repuls

(1mark)

- B.
1. B to A (From sea to land)

(1mark)

2. For suitable description

(2marks)

3. 290°C

(1mark)

4. a) Black colour surfaces absorb more heat radiations

(1mark)

b) Coolent property

(1mark)

5. to survive aquatic animals

(1mark)