

Grade - 8

Subject - Science

Paper : I, II

Time - 02 hours

Name / Index Number : .....

**Part - I**

**Select the most suitable answer and underline**

- 01) Out of the following statements select the most suitable statement regarding micro organisms?  
(i) A hand lense can be used to observe micro organisms  
(ii) Micro Organisms are uni-cellular organisms  
(iii) These organisms cannot be seen to the to naked eye  
(iv) All the micro organisms cause diseases to man
- 02) Which factor does not have an effect on the growth of micro orgamsms  
(i) Temperature (ii) moisture (iii) p<sup>H</sup> value (iv) pressure
- 03) Given below are several diseases caused by micro organisms. Select the correct micro organism relevant to the disease  
(i) Pityriasis - fungi (ii) Polio - bacteria  
(iii) lepresy - virus (iv) tuberculosis - protozoa
- 04) A certain organism possesses a dry skin with scales. Some do not have legs. Reproduce by eggs to which group of animals, does this organism belong to  
(i) Aves (ii) Amphibia (iii) Reptilia (iv) Mammalia
- 05) Select the answer that includes only invertebrates  
(i) Leech, Snail, Dragonfly, Python  
(ii) Cock, Dog, Snake, Bat  
(iii) Spider, Sea anemone, Dragonfly, Python  
(iv) Bat, Beetle Sea anemone, Butterfly
- 06) Which animal correctly corresponds with the relevant animal group  
(i) Salamander - Reptilia (ii) Dolphin - Pisces  
(iii) Loris - Mammalia (iv) Tortoise - Amphibia
- 07) What is the vertebrate group which shows metamorphosis  
(i) Amphibia (ii) Arthropoda (iii) Mollusca (iv) Aves
- 08) What is a raw material for photosynthesis?  
(i) Oxygen (ii) Water (iii) Sunlight (iv) Glucose
- 09) Out of the following statements which statement is correct regarding leaf arrangement in plants?  
(i) The nature of margin of plant leaves is called leaf veins  
(ii) Plant venation is how the sequence of attachment of plant leaves to the stem  
(iii) This does not help to get maximum sunlight to the leaf  
(iv) In guava, leaves are attached in a spiral manner around the stem.
- 10) Out of these, what is not an adaptation to prevent transpiration from plant leaves?  
(i) Having a broad leaf blade  
(ii) Leaves have been converted into thorns  
(iii) Having thin leaves  
(iv) Having a thick wax cuticle
- 11) Which plant has a photosynthetic stem?  
(i) Potato (ii) Paddy  
(iii) Daluk (iv) Mimosa

12) Select the answer with the correct type of roots and the plant?

- (i) Respiratory roots - orchid
- (ii) Aerial roots - betel
- (iii) Stilt roots - betel
- (iv) Adventitious roots - pepper

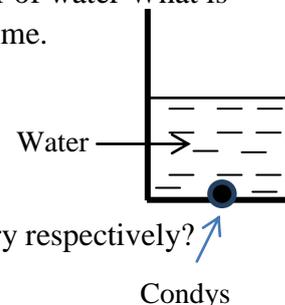


13) Which chemical in the laboratory, is a solid with yellow colour?

- (i) Calcium carbonate
- (ii) Sulphur
- (iii) Copper sulphate
- (iv) Condys

14) Given below is a diagram, where a piece of Condys has been put in to a beaker of water. What is the incorrect statement regarding the observation, when this is kept for some time.

- (i) The colour of Condys spreads in water
- (ii) Condys Particles enter in to water particles.
- (iii) Condys Particles enter throughout water particles.
- (iv) Particulate nature of matter can be proved from this activity.



15) What is the ascending order of densities of gold, Aluminum, water and mercury respectively?

- (i) Gold < Mercury < Aluminum < Water
- (ii) Water < Aluminum < Gold < Water
- (iii) Mercury < Aluminum < Gold < Water
- (iv) Aluminum < Water < Gold < Mercury

16) Out of these what is a property of metals

- (i) Being a poor heat conductor
- (ii) Having a low melting point
- (iii) Brittleness
- (iv) Being a heat and electric conductor

17) Out of the following metals which answer includes only solid metals?

- (i) Calcium, Copper, Zinc, Iron
- (ii) Zinc, Lead, Iodine, Aluminum
- (iii) Zinc, Iron, Mercury, Carbon
- (iv) Carbon, Sulphur, Magnesium, Sodium

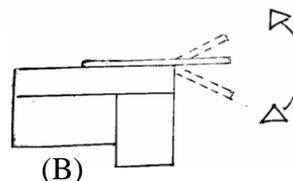
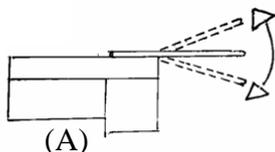
18) Which answer is correct regarding the boiling point of a certain thing?

- (i) Boiling point of pure water is more than  $100^{\circ}\text{C}$  at a mountain top.
- (ii) Boiling point decreases with the increase of atmospheric pressure
- (iii) A liquid turns in to the state of a gas at its boiling point
- (iv) A solid turns in to the state of a liquid at its boiling point.

19) Which statement is incorrect regarding sound?

- (i) Sound is produced because of the vibration of objects.
- (ii) Objects that create sounds are called sources of sound.
- (iii) Sound is created either naturally or artificially.
- (iv) The frequency of the sound that creates, when the membrane of a tabla is stretched is lesser.

20) What is the incorrect statement regarding the A and B instances out of the following statements?



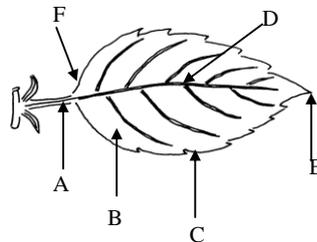
- (i) At the instance A, the vibration of the hacksaw blade is visible, but the sound is not audible.
- (ii) At the instance B, the vibration of the, hacksaw blade is visible, but the sound is not
- (iii) The vibration that occurs at the instance A is lesser than 20Hz.
- (iv) The frequency of the vibration that occurs at the instance B is lesser than 20Hz.

**Part - II**

- **First question is compulsory**
- **Answer the first question and four other questions**

01. A) The major reason for the beauty and the wonder of a forest is the diversity of plants. The reason for this vast diversity is morphological features of plants.

(i) Name the parts from A to F in this plant leaf (  $\frac{1}{2} \times 6 = 3$  M )



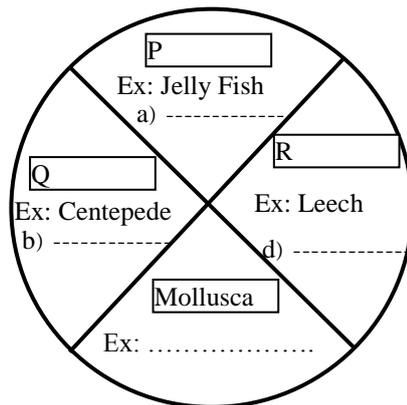
- (ii) a) What is the major function of a plant leaf? (1 M)
- b) Write two adaptations of a plant leaf for the above mentioned function (2 M)
- (iii) Write an adaptation of a plant to reduce transpiration and an example for that (2 M)
- (iv) Write example for each of the roots given below, selecting from the plants within brackets.

(Betel, Vanilla, Karapincha, Radish)

- a. Storage roots -----
- b. Aerial roots -----
- c. Propagative roots -----
- d. Climbing roots ----- (2 M)

B) Given below is a diagram that shows several groups of animals and the relevant organisms for each of the group. ( Use the words inside brackets to fill in the blanks.)

(Nidaria, Annelida, Bivalve, Earthworm, Sea anemone, Butterfly, Arthropoda)



- (i) Select and write the suitable groups of animals for P & Q squares (3 M)
- (ii) Write Suitable animals for a, b, c, and d (2 M)
- (iii) What is meant by animal classification (1 M)

02. A) The organisms in our surrounding are classified into three major groups called plants, animals and micro organisms.
- Explain who is a "micro-organism"? (1 M)
  - Although it is difficult for micro organisms to live successfully, write 2 environments where micro-organisms live successfully. (1 M)
  - Food spoilage is one of the main disadvantage caused by micro organisms (1 M)
    - Write 2 features that can be used to find out a rotten food. (1 M)
  - The activity of micro-organisms is minimum in a food kept in a refrigerator. Write two factors that are controlled here.
  - Write two diseases caused by one group of micro organisms called Protozoa. (1 M)
- B) Put "✓" if the statements given below are right and put "×" if the statements given below are wrong.
- Cassowary is a bird who cannot fly ( )
  - Glucose is a pure compound ( )
  - Aloe Vera leaf conserves water ( )
  - Radish has adventitious roots ( )
  - Golden jewellery get damaged, when they are touched with Mercury ( ) (5 M)

03. A) There is a great diversity among the animals in our surrounding. They have been classified for the easiness of studying. Complete the following table, based on the classification of animals and their features. ( $\frac{1}{2} \times 10 = 5$  M)

Organism	Group	Respiratory structure	locomotion
a .....	b.....	c .....	Using fins
Salamander	d .....	lungs	e.....
f .....	Aves	g .....	f.....
i.....	j .....		Joined appendages

- B) Select the suitable answer for part "A" from part "B" and write the relevant letter on the dotted line. (  $1 \times 6 = 6$  M )

- | A   | B               |
|---|-----------------|
| (i) Have external ear lobes                               | a) Karapincha   |
| (ii) The activity of micro organisms on food with protein | b) Sand paper   |
| (iii) A storage stem                                      | c) Bee          |
| (iv) There are propagative roots                          | d) Loris        |
| (v) Has a thick texture                                   | e) Putrefaction |
| (vi) Sound is produced by the fast motion of their wings  | f) Sugar cane   |

04. A) Fill in the table, considering the physical properties of matter. ( $\frac{1}{2} \times 8 = 4 \text{ M}$ )

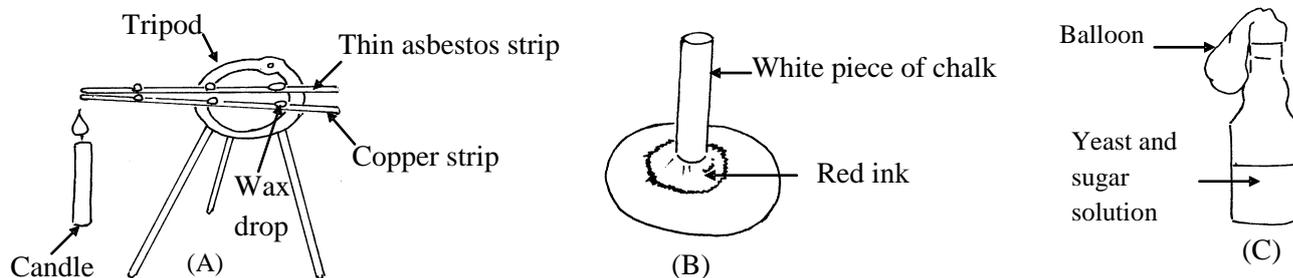
Property	Shape	Volume	Pressure
Solid			
liquid			
gas		No definite volume	

B) Given below are several substances, necessary for a science experiment.

Density bottle, Distilled water, Beaker, Filter papers, Brackish water, Thermometer, Fresh water

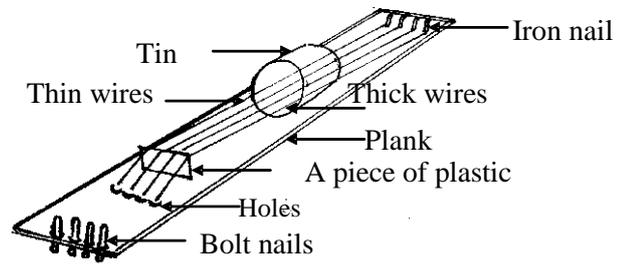
- (i) What is called the density of a substance? (1 M)
- (ii) Write the density of brackish water, distilled water, and fresh water according to an ascending order (2 M)
- (iii) Write another name for the density bottle (1 M)
- (iv) (a) What instruments should be taken from the above table to find out the purity of water. (1 M)
- (b) Explain how you find out the purity of distilled water using those instruments (2 M)

05. Given below are several setups prepared by a group of Grade 8 students.



- i) (a) What is your observation in set up A? (1 M)
- (b) What is your conclusion, according to the observation (2 M)
- (c) Name two other things that can be used to get this observation of copper stripe? (1 M)
- ii) (a) What is your observation in set up B? (1 M)
- (b) What is your conclusion, according to the observation (2 M)
- iii) (a) Write 2 observations you can get from the set up C? (2 M)
- (b) What is the reason for the observation in the balloon? (1 M)
- (c) Which material with a bad smell is produced, inside the sugar solution in the bottle, because of the activity of yeast? (1 M)
- (d) Write an instance, where the process in C is used in day today life? (1 M)

06. A) Given below is a structure of a musical instrument which can be made easily
- How does this musical instrument produce sound? ( 1M)
  - Name another two musical instruments that produce sound like that? (1M)
  - Write how the frequency of the sound is made by the musical instruments changes in each of the following instances. (3M)



- When the vibrating length of the strings get decreased.
  - By increasing the amount of tension off strings
- (iv) a) Write two other ways, how sound is is produced from musical instruments (1M)
- Write one example for each? (1M)

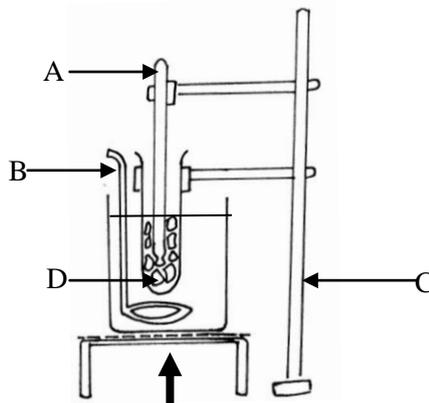
B) Select the Suitable answer for the blanks and fill in the blank. (1×4)

- ( / Guitar) is used abundantly in cultural festivals
- A black substance is made, when ----- (Copper powder/ Iron powder) is mixed with sulphur powder and heat.
- (Nitrogen dioxide / Sulphur diexide) is a brown colour gas.

07. A) Purity of things can be determined by using the melting points of things

- What is called the melting point of a substance?

Given below is a set up prepared to find out the melting point of water.



- Name a, b and c in the above diagram ( 2M)
  - What is your special observation at the melting point of a certain substance of the reading of the thermometer? ( 1M)
  - How is melting point used to determine the polarity of a certain substance? ( 1M)
- B) There are different physical properties in matter. Write physical properties in these two. ( 2M)
- (a) Copper - (b) Glass -
  - Write an instance where the physical properties given below is used ( 2M)
    - Conductivity of electricity (b) hardness
  - Which elements are in the following compounds ( 2M)
    - Copper sulphate - (b) Carbon dioxide -

