De Mazenod College, Kandana

Science

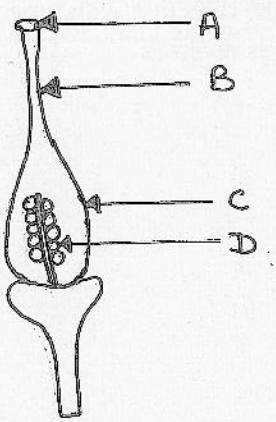
Grade – 7

1st Term Test - 2024 **Duration – 2 Hours**

Part - I

- Answer all the questions
- Select the most suitable answer.

1. The amount of electrical charges that can be stored in a capacitor is measured in,
   1) Volt 2) Farad 3) Ampere 4) Watt
2. A plant with an underground stem is,
   1) Radish 2) Manioc 3) Beet root 4) Colacasia
3. When ebonite rod rubbed with wool gains negative (-) static electric charges. Which statement explains the above phenomena is,
   1) Negatively charged particles (-) on the surface of the ebonite rod are collected on woolen cloth.
   2) Positively charged (+) particles on the surface of the ebonite rod are collected on woolen cloth.
   3) Negatively charged (-) particles on the surface of the woolen cloth are collected on the ebonite rod.
   4) Positively charged (+) particles on the surface of the woolen cloth are collected on the ebonite rod.
4. Only non- flowering plants present in,
   1) Cycas , Cyperus, Coconut
   2) Drynaria, Corn, Paddy
   3) Long bean, Rose, Mango
   4) Cycas, Moss, Dryanaria
5. Which property of water is used to make an orange juice by mixing orange juice, water and sugar is,
   1) Water as a medium of life
   2) Water as a solvent property
   3) Transparent nature of water
   4) Coolant property of water
6. What is the function of the prop root?
   1) Store food
   2) Absorb water vapour from the atmosphere
   3) Support the branches
   4) Support the stem
7. The first scientist who carried out experiments on lightning is,
   1) William Gilbert 2) Benjamin Franklin 3) Michael Faraday 4) Isaac Newton
8. A plant with compound leaf is,
   1) Jak 2) Papaw 3) Manioc 4) Coconut
9. Electricity is generated in a simple cell by,
   1) Chemical process 2) Solar energy 3) Rotation / moving
   4) None of the above is correct
10. The figure given below shows the parts of a gynoecium of a flower parts A,B,C and D are respectively present in,
    1) Ovules, Ovary, Style, Stigma
    2) Stigma, Style, Ovules, Ovary
    3) Stigma, Style, Ovary, Ovule
    4) Style, Stigma, Ovary, Ovule



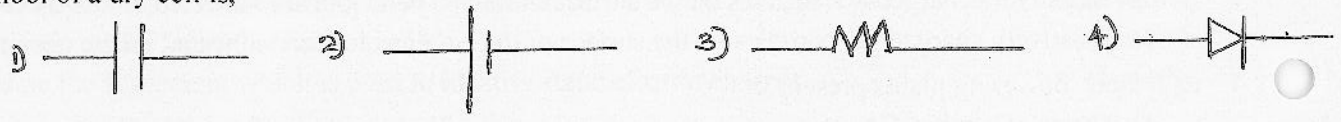
11. An instance where the coolant property of water is used,
    1) To dissolve concentrated acids in water
    2) Producing sugar
    3) Transport nutrients through blood in human body
    4) Radiators

12. The amount of electricity generated in a dynamo can be increased by,
    1) Decreasing the strength of the magnet
    2) Increasing the speed of the rotation of the dynamo.
    3) Reducing the number of the turns of the coil.
    4) All above statements are correct.

13. A plant bears light seeds with wing like structures. The most possible seed dispersal method of above plant is,
    1) By animals 2) By water 3) By wind 4) none of above is correct

14. A flying mammal is,
    1) Bat 2) Ostrich 3) Parrot 4) Penguin

15. Symbol of a dry cell is,



16. Which answer contains only acidic substances?
    1) Lime water, lime juice, vinegar
    2) Tomato juice, water, vinegar
    3) Lime juice, tomato juice, kerosene
    4) Vinegar, lime juice, tomato juice

17. What is the most soluble substance in water,
    1) Kerosene 2) Surgical sprit 3) Wheat flour 4) Wax

18. There are some characteristics given below,
    A. Two seed lobes present
    B. Reticulate venation present
    C. Fibrous root system present
    D. Flowers with three petals or its multiples.

    Features which shows only in monocot plant are,
    1) Only C and D
    2) Only B and C
    3) Only A and C
    4) A,B,C,D, all

19. Not a use of separating materials dissolved in water is,
    1) Producing salt from sea water
    2) Producing sugar from sugar cane
    3) Using water to the radiators
    4) Producing jaggery

20. A feature of a direct current is,
    1) The current flows to one direction
    2) The current that changes the direction with time
    3) The flow of electric charges reverses
    4) All above are correct

Part - II

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

01. There are different types of roots found in the environment and their functions are different.

i. Mention two main functions of roots of plants. (2 marks)

ii. Mention a difference between a tap root system and fibrous root system. (1 marks)

iii. Complete the following table. (7 marks)

Types of root	Example	Functions
a)	Orchid	b) .....
Storage roots	c)	d) .....
e)	Betel	f) .....
Prop root	Banyan	g) .....

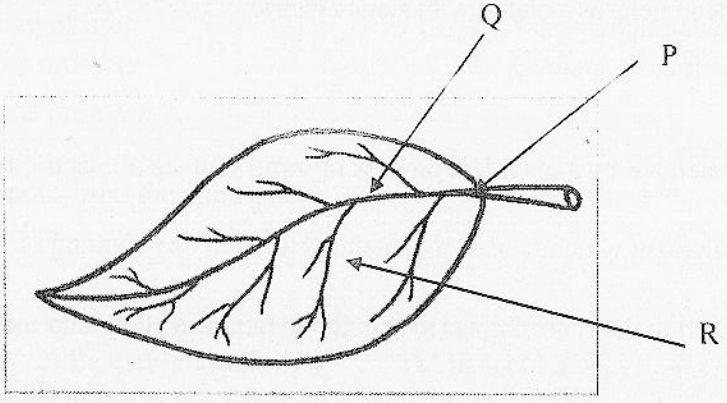
B. There are more types of capacitors are made in various sizes and mention some information on them.

i. What is a capacitor? (1 mark)

ii. Draw a symbol of a capacitor (1 mark)

iii. Draw a diagram to show an activity for identification of charging and discharging of a capacitor and mention its observations. Mention a reason for your observation. (4 marks)

02. A) The below figure shows the parts of a plant leaf.



i. Label the parts P, Q and R (3 marks)

ii. Mention one difference between two main venation patterns occur in plants. (1 mark)

iii. How can we classify the leaves according to the way that the leaf blade is divided? (1 mark)

iv. Mention a function of a leaf. (1mark)

B)

i. Why do flowers are important for a plant? (1 mark)

ii. Draw and label androecium of a shoe flower (1 mark)

iii. What is the function of gynoecium? (1 mark)

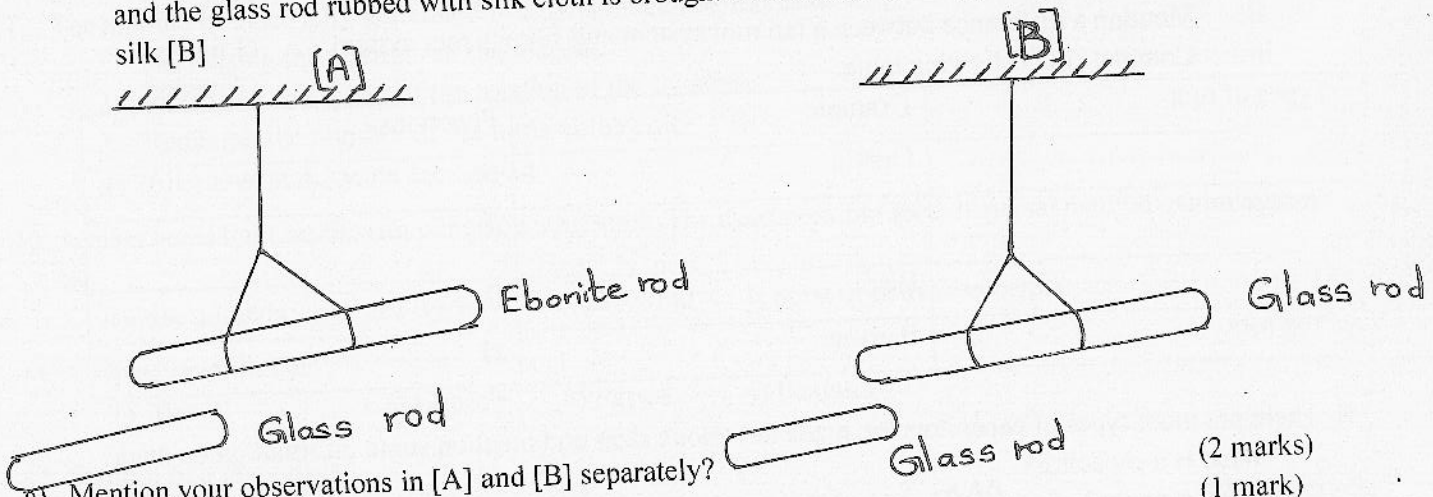
iv. What is the difference of monocot plant and a dicot plant and give one example for each of them? (2 marks)

03. A) When some object are rubbed, electric charges are generated on them.

i. Who was the first scientist observed that when some objects are rubbed, light objects are attracted to it? (1 mark)

ii. The following figures shows,

An ebonite rod rubbed, with woolen cloth is brought towards the glass rod rubbed with silk cloth [A] and the glass rod rubbed with silk cloth is brought towards the same types of glass rod rubbed with silk [B]



a) Mention your observations in [A] and [B] separately? (2 marks)

b) Give reasons for your observation in [A] (1 mark)

iii. Name the equipment which is used to identify static electric charges (1 mark)

B)

i. How is the distribution of charges of an objects before rubbing? Explain briefly (1 mark)

ii. What happen to the charges of objects when rubbing each other? Explain (1 mark)

iii. Mention four phenomena associated with static electricity? (4 marks)

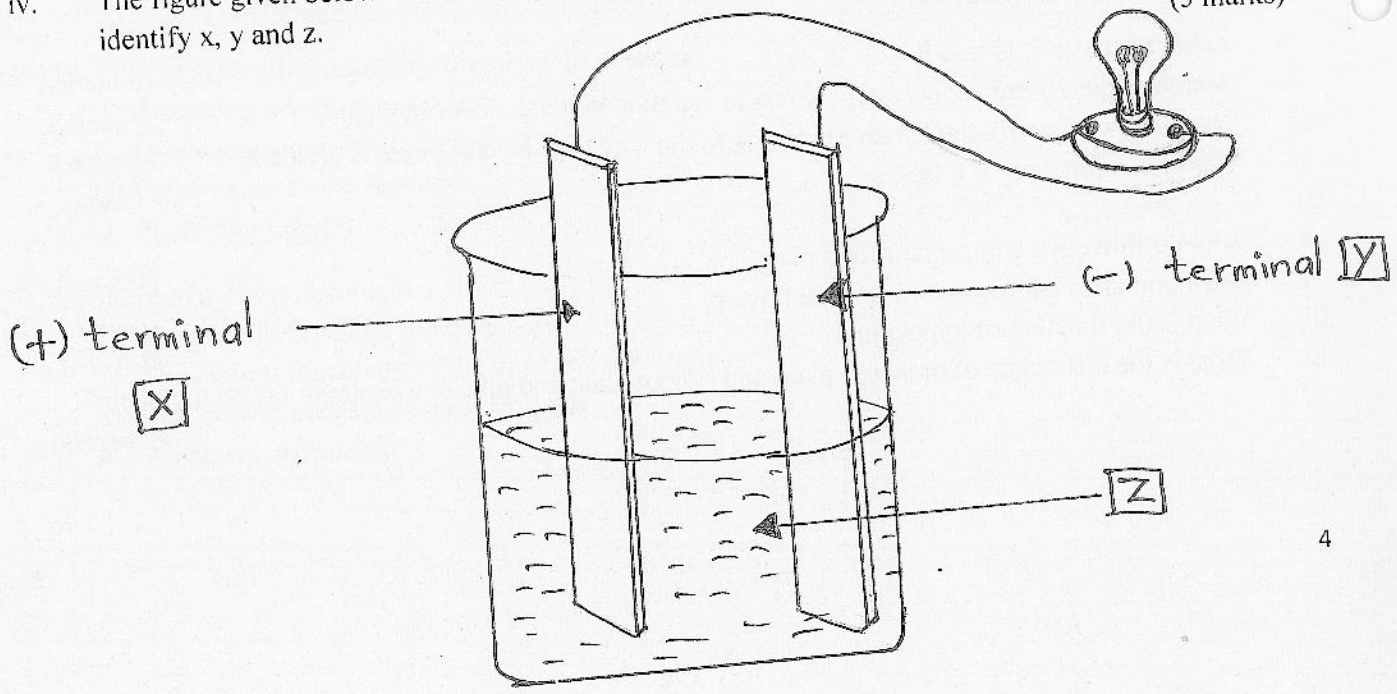
04. A) We use electricity for our day to day activities and use different sources of electricity to generate electricity.

i. Electricity is generated by a chemical process in some sources of electricity. Name two of them. (2 marks)

ii. Mention an equipment which is used to generate electricity by rotating or moving them. (1 mark)

iii. What is the reason to use a millimeter in activity, generating electricity using a lime fruit? (1 mark)

iv. The figure given below shows a simple cell which is used to generate electricity in the laboratory identify x, y and z. (3 marks)



B)

i. Name two instances where dynamo is used to obtain electricity. (2 marks)

ii. Mention two ways that you can develop the efficiency of the dynamo you have made in your practical. (2 marks)

05. Water is important for the survival of organisms due to specific functions of water.

i. Name 3 instances where water is important as a solvent. (3 marks)

ii. Mention 3 instances where we use of separating materials dissolved in water. (3 marks)

iii. Mention 3 uses of coolant property of water. (3 marks)

iv. Name two chemical reactions take place in a medium of water in humans. (2 marks)

06. Define the following terms.

i. Photosynthesis. (3 marks)

ii. Battery (2 marks)

iii. Electromagnetic induction (2 marks)

iv. Alternating current. (2 marks)

v. Coolant property of water (2 marks)

07.

i. What do you mean by indicators? (1 mark)

ii. Mention two indicators that you can prepare by using some materials in the natural environment. (2 marks)

iii. Mention two acids that are used frequently in the laboratory. (2 marks)

iv. Mention two bases that are used frequently in the laboratory. (2 marks)

v. A) Name two indicators that you can use in laboratory. (2 marks)

B) Mention the colour change that you can observe when using the indicators mentioned in (A) with acids and bases separately. (2 marks)