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Department of Education, Southern Province

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Second Term Test- 2023

Grade 7 | Science | Two hours

Name / Number.....

Part I

- *Answer all questions. Underline the most suitable answer.*

01. Which of the following plants is non- flowering?
(1) Cycus (2) Jak (3) Bamboo (4) Curry leaves

02. What is the option that contains **only** dicotyledonous plants?
(1) Jak, guava, sugar cane (2) Long beans, mango, papaw
(3) Long beans, chili, paddy (4) Sugar cane, Kithul, Paddy

03. Which option contains correctly the type of roots specialized for absorption of water vapour in atmosphere together with an example for it?
(1) Respiratory roots – Orchid (2) Respiratory roots – *Sonaratia* (kirala)
(3) Aerial roots – *Sonaratia* (kirala) (4) Aerial roots – Orchid

04. What is the device that can store electric charges?
(1) Capacitor (2) Diode (3) Rheostat (4) Ammeter

05. Which of the following scientists first discovered that charges get accumulated on the surface of substances when they are rubbed with each other?
(1) Galileo Galilee (2) Charles Darwin (3) William Gilbert (4) Benjamin Franklin

06. Which of the following phenomena is related to static electricity?
(1) Occurrence of rain (2) Lightening (3) Occurrence of wind (4) Occurrence of clouds

07. What is the device that converts chemical energy into electric energy?
(1) Turbine (2) Dynamo (3) Solar panel (4) Dry cell

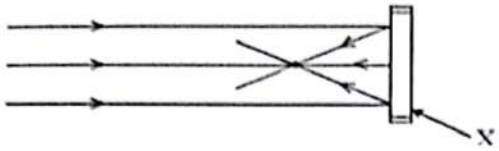
08. In a bicycle dynamo,
(1) There is a rotating magnet (2) There is a rotating coil of wire
(3) There is a rotating carbon rod (4) There isn't any of these

09. What is microscope with the highest magnification and resolution power?
(1) Compound light microscope (2) Electron microscope (3) Simple microscope (4) Hand lens

10. How many plane mirrors are there in the periscopes used in submarines?
(1) Three (2) Five (3) Two (4) Six

11. A substance that **does not** dissolve well in water is,
(1) Salt (2) Sugar (3) Washing blue (4) Vinegar

12. The diagram given below illustrates how light behaves when it falls on device X. Accordingly, what optical device is denoted by X?



(1) A plane mirror
(2) A convex mirror
(3) A concave mirror
(4) None of the above

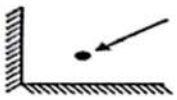
13. Which of the following pairs of elements is found in the liquid form in the core of the earth?

(1) Iron & Copper (2) Iron & Nickel (3) Nickel & Copper (4) Iron & Aluminium

14. Which of the following substances **is not** a basic substance found at home?

(1) Soap (2) Wood ash (3) Detergents (4) Salt

15. An object is kept in front of two plane mirrors which are kept in an angle of 90^0 as illustrated below. How many images of the object will be formed in this instance?



(1) Four (2) Three (3) Five (4) One

16. Select the option that contains **only** vertebrates.

(1) Gecko, cobra, blue magpie (2) Cobra, butterfly, snail

(3) Snail, earthworm, butterfly (4) Blue magpie, earthworm, gecko

17. Which of the following options contains the energy sources that minimally pollute the environment?

(1) Coal, fossil fuel (2) Fossil fuel, L. P. Gas (3) Bio gas, coal (4) Flowing water, solar power

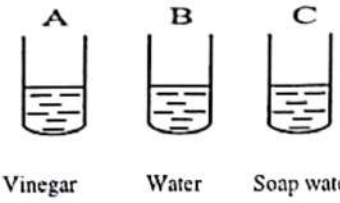
18. Three statements made by a student regarding the objective piece of the compound microscope are given below.

A – It is the lens close to the specimen **B** – There are three main types **C** – It is the lens close to the eye

The correct statements out of these are,

(1) Only A & B (2) Only B & C (3) Only A & C (4) All A, B & C

19. A, B, C test tubes contain vinegar, water and soap in respective order. When a drop of phenolphthalein is added to each of them, the test tube with solutions that give/s pink colour is/are,



(1) Only A & B (2) Only B & C

(3) Only C (4) Only A & C

20. What is the strategy that can be used for minimizing air pollution?

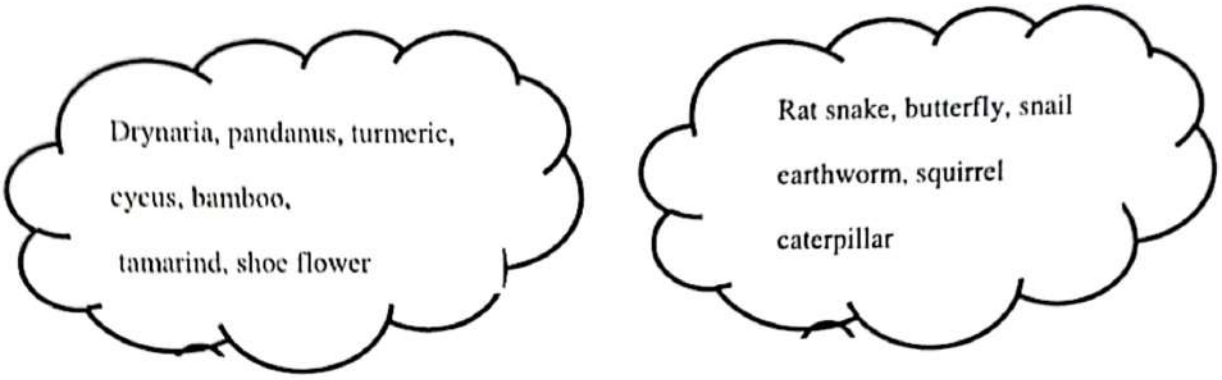
(1) Use of public transport modes (2) Recycling of garbage

(3) Tuning the engines of vehicles (4) All of these

Part II

- **Answer <u>Question No. 1</u> and <u>four</u> other questions.**

(01) (A) Plant and animal species identified by a group of students who engaged in a field trip in a nearby thicket with their teacher of Science are given below.



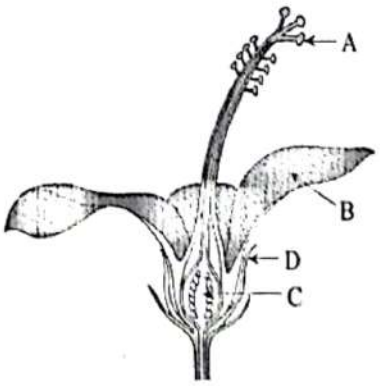
(i) (a) What are the two main groups that the above animals can be divided?
(b) Divide them into the two groups you mentioned above.

(ii) What is the feature that you used for dividing the above animals into the two groups in the above question?

(B) i) Write down an example **selecting from the above list** for a plant bearing each of the following features.

a) A flowering plant
b) A plant with underground stems
c) A plant with stilt roots
d) A plant with compound leaves
e) A plant bearing leaves with reticular venation

ii) A half flower of a shoe flower collected in the field trip was drawn in order to identify its parts.

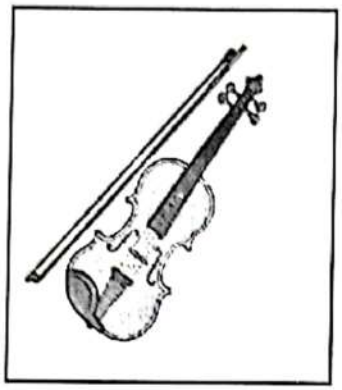
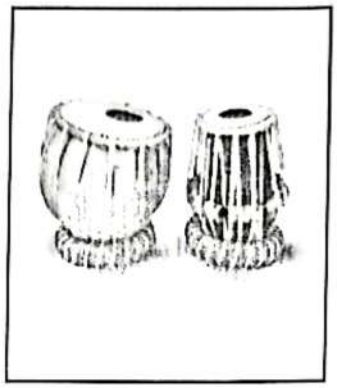


(a) Name the parts A to D in the diagram,
(b) What are the two parts belonged to the androecium.

i) What observation can be made when water is boiling?
ii) Mention two things that you use to make the turbine.
iii) Write down the energy transformation takes place when the set-up is operated.

(B) Different musical instruments produce different sounds.

(i) What things should be vibrated in order to produce sound by the musical instruments given below?


(ii) During thunder and lighting, sound is heard short while after seeing the light. Why is that?

(06) (A) The structural and functional unit of life is the cell. There are unicellular and multicellular organisms.

i) Name the A and B organizational levels of a multicellular organism.

Cell → A → Organ → B → Organism

ii) Give two examples for the organizational level B.
iii) Name two unicellular organisms.

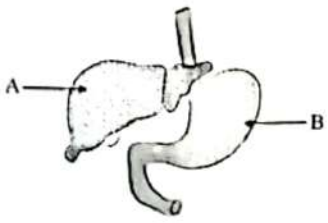
(B) There are systems modified for biological purposes such as respiration, digestion and excretion.

i) What is the chamber common for both digestive and respiratory tracks?

ii) Mention two functions done by the digestive system.

iii) A diagram illustrating part of the human digestive system is given below.

Name the organs labeled as A and B in it.

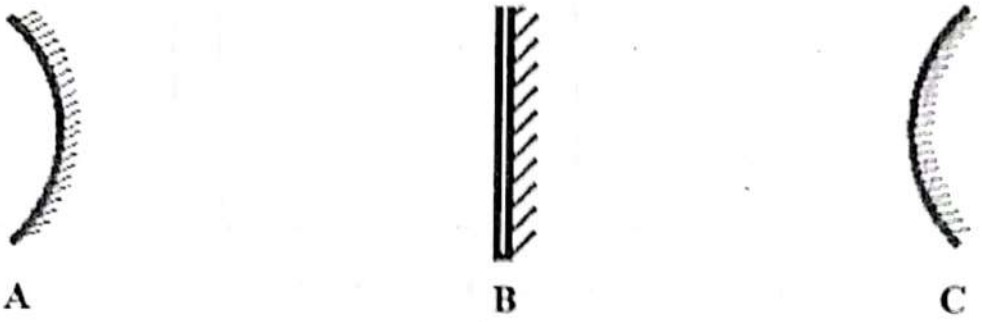


(B) Water and salt are neutral substances. Acidic and basic substances are also used in various purposes.

i. Give **two examples** each for acidic and basic substances used at home.
ii. A bright red colour was observed when shoe flower boiled water is added to lime juice.
(a) How does shoe flower boiled water act here?
(b) Mention two such substances used in the laboratory to identify acids and bases.
iii. The mouth of the people who chew betel and areca with lime turns into red colour. Why?

(04) (A) Images are formed as a result of reflection of light by mirrors.

i) Name the mirrors A, B. C.

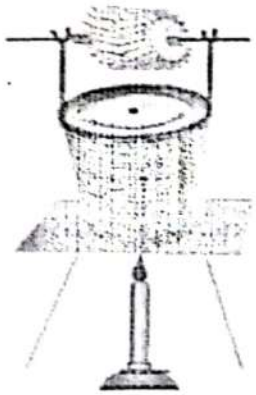


ii) Write down two features of the images formed by mirror B.
iii) Write down an instance where mirror A is used..

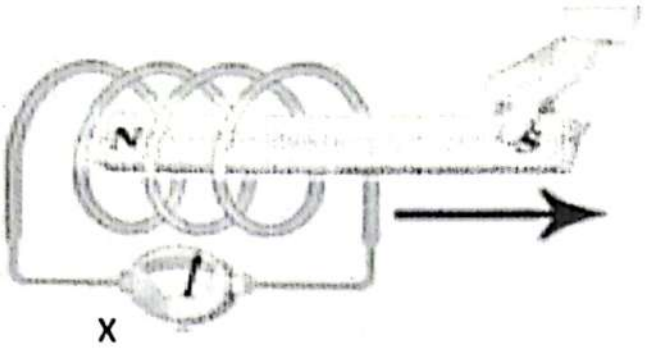
(B) A simple microscope is made by fixing a frame with a handle to a lens.

(i) What type of lens is used as the simple microscope?
(ii) Define the term "eye piece" of a compound microscope.
(iii) Mention two facts that you have to consider when using a microscope.

(05) (A) A steam turbine operated with thermal energy is illustrated below.



(02) (A) A set up arranged to demonstrate that electricity can be generated by rotating or moving is illustrated below.



i) (a) What is instrument X used for identifying whether current is produced when the magnet is moved in the coil?

(b) What is the observation given by the instrument X, if current is generated?

ii) (a) What is the device that generates electricity based on this principle?

(b) The above mentioned device is used for lighting the head lamp of a bicycle. Suggest a way to increase the brightness of the lamp.

(B) Electric energy as well as other types of energy is used in various energy requirements.

i) Thermal energy causes different effects on substances. Mention two such effects.

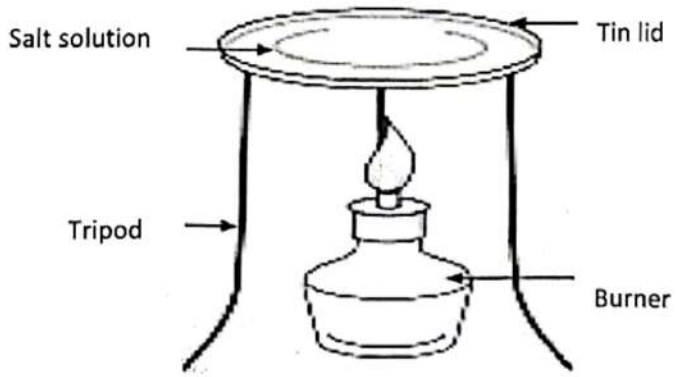
ii) Mention the energy transformation takes place during the use of following devices.

(a) Dry cell (b) Electric fan

(03) (A) Water is essential for existence of life. Solvent property and coolant property are two unique properties of water.

i) Mention an instance where solvent property of water is used.

ii) A set up arranged to separate the things dissolved in water is illustrated below.



(a) What is the observation made at the end of heating the salt solution?

(b) Name a product produced using this method.