



Index number:.....

Grade 07

Paper I & II

Time 02 Hours

Instructions:

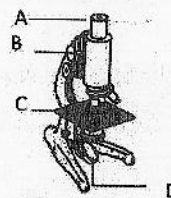
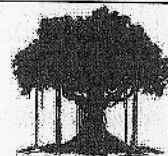
- Answer all the questions in part I. Select the most appropriate answer and underline it.
- Answer 5 questions in Part II including 1st question.

Part I

- The type of root found in the plant shown in the figure is,
 - Aerial roots
 - Respiratory roots
 - Prop roots
 - Stilt roots
- Which of the following is not a musical instrument that produces sound by membrane vibration?
 - Gatabera
 - Rabana
 - Tabla
 - Horanawa
- The scientist who discovered that certain substances attract light objects when rubbed is,
 - Isaac Newton
 - Thomas Alva Edison
 - William Gilbert
 - Galileo Galilei
- At what angle should two plane mirrors be inclined to obtain three images?
 - 45°
 - 30°
 - 90°
 - 60°
- Which of the following organs does not belong to the digestive system?
 - Liver
 - Trachea
 - Large intestine
 - Rectum
- Which of the following is an example of the coolant property of water?
 - Controlling the overheating of a vehicle's engine by cooling the radiator
 - Presence of fish at the bottom of frozen lakes in cold countries
 - Aquatic organisms obtaining oxygen from water for respiration
 - Production of sugar from sugarcane juice
- In which layer of the atmosphere is the International Space Station located?
 - Troposphere
 - Stratosphere
 - Mesosphere
 - Thermosphere
- Which of the following words best describes the ability to do work?
 - Power
 - Pressure
 - Energy
 - Speed
- In the diagram, the correct labels for A, B, C and D are,
 - A - Eyepiece, B - Coarse adjustment knob, C - Stage, D - Mirror
 - A - Coarse adjustment knob, B - Stage, C - Mirror, D - Eyepiece
 - A - Eyepiece, B - Mirror, C - Coarse adjustment knob, D - Stage
 - A - Stage, B - Eyepiece, C - Mirror, D - Coarse adjustment knob
- Among the given animals, which one is a vertebrate?
 - Frog
 - Snail
 - Earthworm
 - Sea Anemone
- An electrical device that generates electricity through electromagnetic induction is,
 - Solar cell
 - Lead-acid accumulator
 - Simple cell
 - Dynamo
- The device shown in the diagram is a,
 - Transistor
 - Resistor
 - Capacitor
 - Diode
- Which of the following are mammals?

A - Bat	B - Shark	C - Dolphin
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 - A and B only
 - A and C only
 - B and C only
 - C only



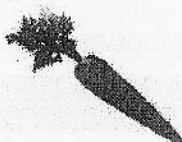
14. Which of the following figures does not represent an underground stem?

i. Carrot

ii. Potato

iii. Ginger

iv. Onion



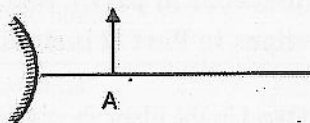
15. Which of the following is not a characteristic of the image formed by an object placed in front of a convex mirror?

i. Larger than the object

ii. Smaller than the object

iii. Cannot be projected on a screen

iv. Upright image



16. In which electronic device does Light energy convert into Electrical energy?

i. Electric torch

ii. Simple Cell

iii. Dry Cell

iv. Solar Cell

17. A student used a half-cut boiled egg to model the Earth's interior. Which layer of the Earth is represented by the eggshell?

i. Core

ii. Crust

iii. Mantle

iv. Outer core

18. A setup constructed using several cells is called a,

i. As a dry cell

ii. As a dynamo

iii. As a lead-acid accumulator

iv. As a battery

19. When blue and red litmus papers are placed in a container of soapy liquid,

i. Blue litmus does not change, and red litmus turns blue.

ii. Blue litmus turns red, and red litmus does not change.

iii. Blue litmus turns red, and red litmus turns blue.

iv. Neither blue nor red litmus paper changes.

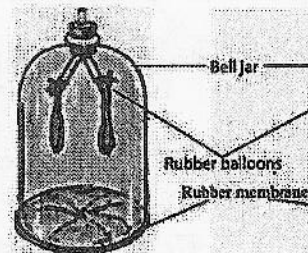
20. What happens when the rubber membrane of a lung model is pulled down?

i. There is no change in the balloons

ii. The balloons inflate

iii. Air enters through the glass tube

iv. The balloons deflate



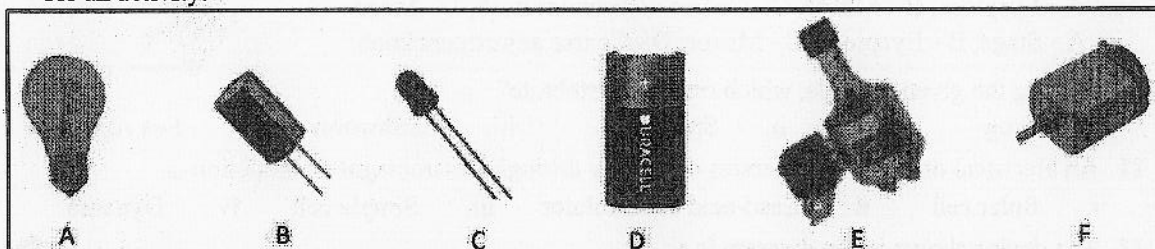
Part II

Instructions:

- Answer 5 questions including the first question.

01.

A. Given below are some devices related to electricity that a group of Grade 7 students prepared to use for an activity.



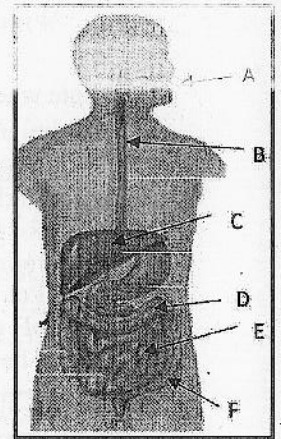
i. Draw the standard symbols used for devices B and D. (1 mark)

ii. Name the two sources of electricity among the devices mentioned above. (1 mark)

iii. Mention the ways in which the above-mentioned electrical sources produce electricity. (1 mark)

iv. What type of current is produced in device E? (1 mark)

- v. Write one point to consider when connecting device C with D in a circuit. (1 mark)
- vi. To operate device A, draw the circuit you will prepare when wires connected to D are provided. Mark the direction of current flow. (2 marks)

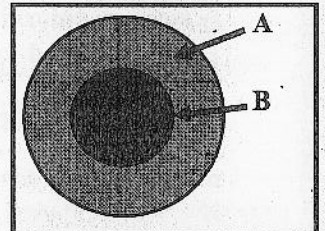


B. Given below is a diagram of the human digestive system. Based on it, answer the following questions.

- Name the parts indicated by the letters D and E in the figure. (1 mark)
- What is the organ that absorbs water? (1 mark)
- Write two main functions performed by the digestive system. (2 marks)
- Mention a change that occurs in the food in the oral (mouth) cavity. (1 mark)

C. Shadows can be observed frequently in day-to-day life. The figure below shows a shadow formed on a screen by a ball placed in front of a lighted torch.

- What causes a shadow? (1 mark)
- Name A and B shown in the given figure. (2 marks)
- What is the observation that the distance between the torch and the ball is increasing? (1 mark)

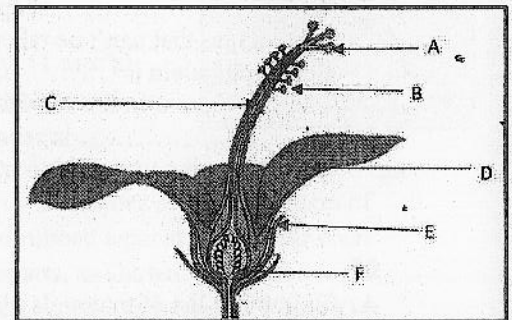


(Total Marks: 16)

02.

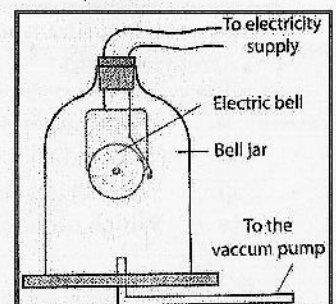
A. A cross-section of a hibiscus flower is shown in the figure below.

- Name the parts labeled from A to F. (3 marks)
- What is the function of the Gynoecium of a flower? (1 mark)
- Fruits and seeds are adapted to spread in different ways. Write down one adaptation for each of the dispersion methods listed given below, (2 marks)
 - By wind -
 - By animals -



B. The following figure shows a laboratory activity related to acoustics (sound).

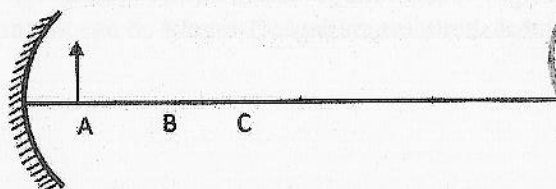
- What is the device used to remove the air in this setup? (1 mark)
- What are the observations of this test,
 - in the presence of air? (1 mark)
 - in the absence of air? (1 mark)
- Write the conclusion you reach by doing this activity. (1 mark)
- What is propagation of sound? (1 mark)



(Total Marks: 11)

03.

A. Smooth shiny surfaces act as mirrors.



- If a small lighted candle is placed in front of a concave mirror at point A, very close to the mirror, can the image be taken on a screen? (1 mark)
- What happens when a parallel beam of light falls on a concave mirror? (1 mark)
- Write an instance where concave mirrors are used in everyday life. (1 mark)



iv. Write two characteristics of the image formed by a plane mirror. (2 marks)

B. State whether the following statements are correct "✓" or incorrect "X" by placing the respective symbol in front of each statement.

- i. Digestion is completed in the small intestine. ()
- ii. Carbon particulates are a gaseous pollutant. ()
- iii. Returning of the light rays into the same medium, after falling on a surface is called reflection. ()
- iv. Potential energy is stored in a wound spring. ()
- v. pH paper gives dark green, blue, and purple colors in a basic medium. ()
- vi. The maize seed can be separated into two lobes. ()

04. Choose the most appropriate word from the following words to complete the given sentences:

(sodium chloride, streamlined body, mill-bar, calcium hydroxide, non-flowering, virtual, kinetic energy, blood, colourless, crust, negative)

- i. Energy that a moving object contains is called the
- ii. is a base used in the laboratory.
- iii. Ebonite rods rubbed with wool receive static electrical charges.
- iv. The fluid used to transport excretory matter in the body is
- v. Plants like Ferns, Drynaria and Cyprus belong to plants.
- vi. The shape is useful for the efficient locomotion of birds and fish.
- vii. The images that can't be taken to a screen is called as images.
- viii. Phenolphthalein is in acidic medium.
- ix. The salt present in the sea water prominently is
- x. is separated in to tectonic plates.
- xi. The measuring unit used to measure the atmospheric pressure during weather forecasting is, ...

(Total Marks: 11)

05.

A. Below is a list of materials placed on the lab table for a group activity.

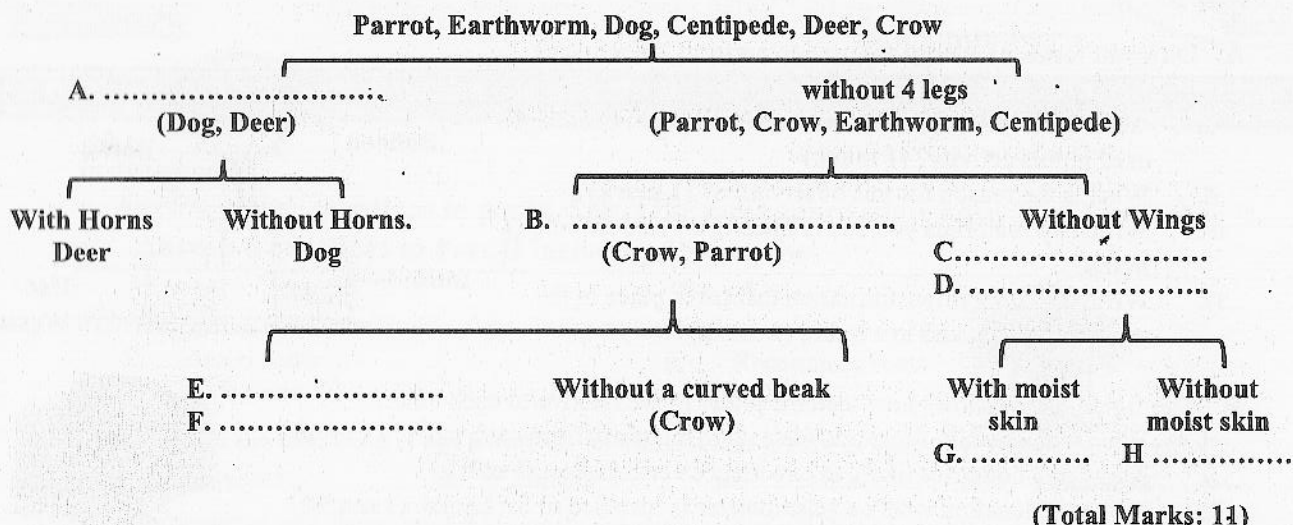
Salt solution, Shampoo solution, Vinegar, Kerosene, Shoe-flower boiled water, Lime water, Turmeric liquid

- i. Which of the following substances turns the color of methyl orange indicator yellow? (1 mark)
- ii. Write down a neutral substance from the list. (1 mark)
- iii. Write the name of an indicator that can be obtained from the natural environment. (1 mark)
- iv. Which of these substances gives a pH value of 3? (1 mark)

B. Organisms are able to survive in different environmental conditions because of their adaptations to those environments.

- i. What is camouflage? (1 mark)
- ii. Write two advantages of camouflage for animals. (1 mark)
- iii. Name an animal that shows camouflage. (1 mark)

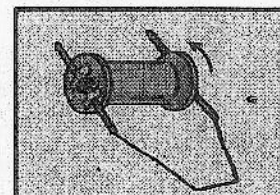
- iv. Consider the dichotomous key below and write the answers corresponding to the letters A, B, C, D, E, F, G and H. (4 Marks)



06.

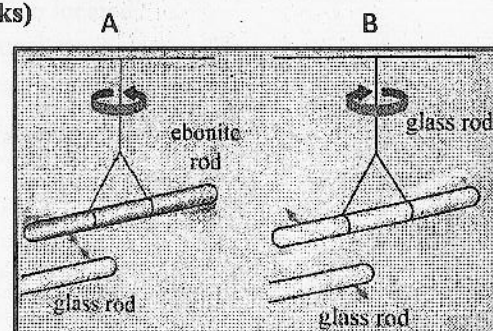
A. Here is a diagram of a toy cart created by a Grade 7 student.

- What needs to be done to make this toy cart work? (1 mark)
- What energy is stored here? (1 mark)
- Write another example where energy is stored in a similar way. (1 mark)
- Write down the energy transformation that takes place when the toy cart moves. (1 mark)



B. Certain substances attract light materials when they are rubbed. In a laboratory activity, a group of students brought a glass rod rubbed against silk and an ebonite rod rubbed against wool, near each other and observed the effects when they were hung from two supports, as shown.

- What is the name of the type of charge that occurs on a material when it is rubbed? (1 mark)
- Write the observations obtained in setups A and B. (2 marks)
- What is the reason for the observation in setup B? (1 mark)
- Name a natural phenomenon caused by the formation of charges mentioned in (i) above. (1 mark)



C. Due to the addition of certain substances to the atmosphere, the change in its composition that is harmful to living organisms is called air pollution.

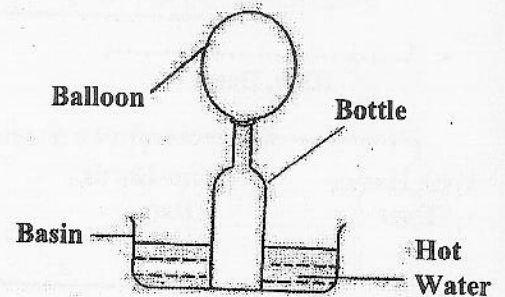
- Write two harmful effects of air pollution. (1 mark)
- Write a course of action that can be taken to reduce air pollution. (1 mark)

(Total Marks: 11)

07.

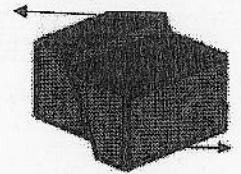
A. Different forms of energy are used to perform tasks in daily life.

- i. What observation is made to identify the form of energy used in this activity? (1 mark)
- ii. What is the reason for this observation? (1 mark)
- iii. Write two materials you use in making an electric bell. (1 mark)
- iv. Write the energy transformation that takes place in the production of sound in a radio. (1 mark)



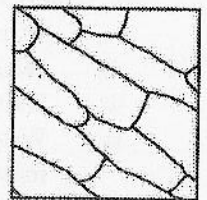
B. The figure below shows how tectonic plates move relative to each other.

- i. What is the result of tectonic plates moving away from each other? (1 mark)
- ii. Name two countries likely to experience earthquakes. (1 mark)
- iii. Name the location where a seismometer is installed in Sri Lanka. (1 mark)



C. Below is a linear diagram of the lower epidermal tissue of a Rhoeo leaf observed by light microscope.

- i. If the magnification of the eyepiece is $\times 10$, the magnification of the objective lens is $\times 4$, and the magnification of the image is 3, calculate the total magnification. (1 mark)
- ii. Write one point to be considered when using a compound microscope. (1 mark)
- iii. Write two situations where electron microscope is used. (2 marks)



(Total Marks: 11)