SET - A

SAMAGRA SHIKSHA, KERALA

E 806

SECOND TERMINAL EVALUATION 2023-24

BASIC SCIENCE

Class: VIII

Time: 2 h
Score : 60

Instructions

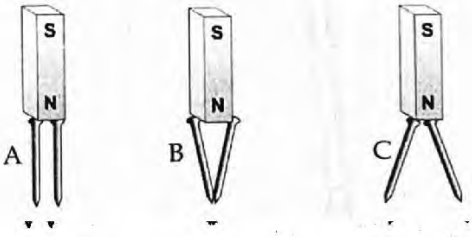
- The total cool off time for Physics, Chemistry and Biology is 15 minutes. Read the questions carefully and understand them during this time.
- Answers are to be written in the order, Physics, Chemistry and Biology. The time for each section is 40 minutes. The answer books must be returned to the teacher after writing each subject.

Physics

Time: 40 min
Score : 20

Answer any Three questions from 1 to 4 . Each carries 1 score. (3 x 1 = 3)

1. Which of the following is a contact force? (1)
   (Magnetic force, Frictional force, Gravitational force, Electrostatic force)
2. Identify the relation from the first pair and complete the second pair. (1)
   Acceleration : m/s^2
   Density : .....
3. What is the focal length of a spherical mirror of radius of curvature 24 cm? (1)
   (6 cm, 10 cm, 12 cm, 40 cm)
4. Three magnets are depicted. Iron nails are attracted to the pole of each magnet. Choose the correct picture. (1)

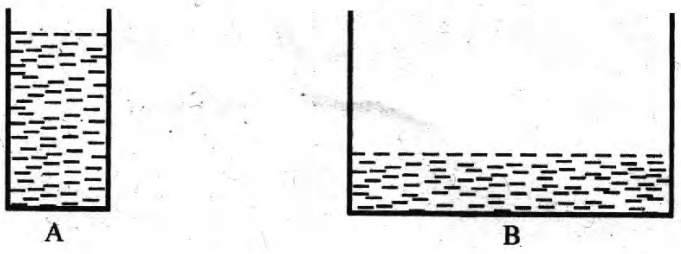


Answer any Four questions from 5 to 9. Each carries 2 score. **(4 x 2 = 8)**

5. Given below are some situations where friction can be beneficial or non beneficial. Tabulate them suitably. (2)
   a) Writing in a notebook with a pen
   b) Wear and tear of machines
   c) Holding objects
   d) Fuel loss

Friction is beneficial	Friction is non beneficial

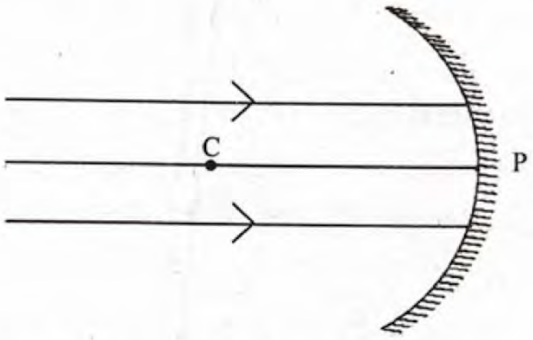
6. Observe the picture below. Both beakers contain the same volume of water.



a) Which beaker experineces maximum pressure at the bottom? (1)

b) Justify your answer. (1)

7. Light rays incident parallel to the principal axis of a concave mirror is shown below.



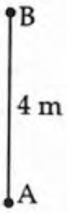
a) Redraw the diagram and mark the principal focus by tracing the reflected rays. (1)

b) Is the principal focus of this mirror real or virtrual? Justify your answer. (1)

8. A stone thrown vertically up from A, travels 4 m in a straight line, reaches B and returns to A.

a) What is the total distance travelled by the stone? (1)

b) What is the displacement of the stone? (1)



9. Water is usually used to extinguish a fire. Is this method applicable when petrol or diesel catches fire? Why? (2)

Answer any <u>Three questions</u> from 10 to 13. Each carries 3 score. **(3 x 3 = 9)**

10. Write down reasons for the following statements.

a) It is easier to move an object by rolling than sliding. (1)

b) Astronauts wear specially designed suits. (1)

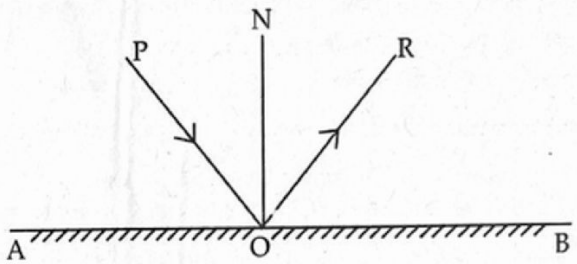
c) Sewing needles are made with sharp tips. (1)

11. A magnetic compass makes use of the directional property of a magnet.

a) Why does the magnetic needle of the compass always come to rest in North-South direction? (1)

b) Is it possible to find the North-South direction if the magnetic needle is placed inside a soft iron case? Why? (2)

12. The picture below shows the reflection of a light ray from a plane mirror. ON is the normal at the point of incidence O.



a) Which is the incident ray? (1)

b) If the angle of incidence is 40^0, what will be the angle of reflection? (1)

c) State the law that helped you to arrive at this conclusion. (1)

13. Suitably match column A, B and C. (3)

A	B	C
Electromagnet	Greater retentivity	Higher ability to get magnetised
Soft iron	Works on electricity	Higher ability to retain magnetism acquired
Steel	Greater susceptibility	Magnetic strength increases with increase in number of turns per unit length

CHEMISTRY

Class: 8

Score : 20
Time : 40 Minutes

Answer any 3 questions from 1 to 4. (1 Score each.) **(3 x 1 = 3)**

1. Which among the following is a chemical change? (1)
   (Water becoming water vapour, Explosion of crackers, Melting of wax, Cutting of wood)

2. Metals can be drawn into thin fine wires. This property is known as ---------- (1)

3. Which is the method used to separate the components present in ethanol -methanol mixture? (1)

   [Distillation, Fractional distillation, Centrifugation, Chromatography]

4. Find the relation and fill up suitably. (1)

   Milk : Colloid

   Muddy water : ---------

Answer any 4 questions from 5 to 9. (2 Scores each) **(4 x 2 = 8)**

5. a) Which gas is formed when sodium reacts with water? (1)
   b) Which among the following metals does not react with water? (1)
   [Potassium, Copper, Calcium]

6. What is the difference between exothermic and endothermic reactions? (2)

7. a) Complete the chemical equation of the reaction between Zinc and Hydrochloric acid.
   $Zn + 2HCl \rightarrow$ ------- + --------- (1)
   b) Buttermilk is not stored in Aluminium vessels. What is the reason? (1)

8. Write the name of solute and solvent present in sodawater. (2)

9. Take some Silver bromide in two dry watch glasses. Wrap one of them with a black paper. Keep both of them in sunlight for some time.
   a) In which watch glass does the colour of Silver bromide change? (1)
   b) Which form of energy is responsible for this chemical change? (1)

Answer any 3 questions from 10 to 13. (3 Scores each.) **(3 x 3 = 9)**

10. Symbol of Sodium is Na.
    a) Write the Latin name of it. (1)
    b) H is the symbol of Hydrogen. What do $5H_2$ and 5H indicate? (2)

11. a) What is electroplating? (1)

b) Which is the solution used to electroplate Copper on an Iron bangle? (1)

c) Which is the cell used in laptops? (1)

12. a) Write the procedure of an experiment to identify the factors which favour the rusting of iron. (2)

b) Suggest one method to prevent rusting of iron. (1)

13. a) What is the difference between saturated solution and super saturated solution? (2)

b) Write two factors that influence the solubility. (1)

BIOLOGY

Time : 40 minutes
Score : 20

Answer any 3 questions from 1 to 4. Each carries 1 score. **[3 x 1 = 3]**

1.Find the odd one and write the common feature of others. (1)

Boer, Jamnapari, Attappadi Black, Niliravi

2. Identify the word pair relation and fill up. (1)

a Six kingdom classification : Carl Woese

Five kingdom classification : .....

b. Dog : Canis familiaris

Wolf : .....

3. Correct the mistake if any, in the underlined part of the given statements. (1)

a. Scientific cultivation of fruits and vegetables is known as Cuniculture.

b. Method of growing plants in nutrient solution is known as Hydroponics.

4. Hints about some organisms are given below. Name the kingdom to which these organsism does belong. (1)

i. Autotrophic, Multicellullar, Non-motile organsisms.

ii. Unicellular organisms with a nucleus.

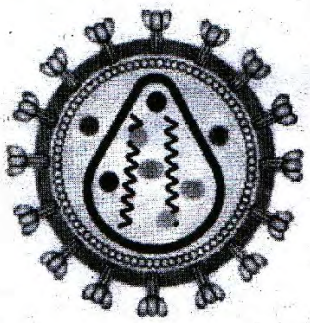
Answer any 4 questions from 5 to 9. Each carries 2 score. **[4 x 2 = 8]**

5. Scientific name of a plant is ***Mangifera indica***

a. What does the first term and the second term refer in this scientific name? (1)

b. Write the scientific method of naming of organisms. (1)

6. Observe the figure and answer the questions.



a. Identify the pathogen and write its name. (1)

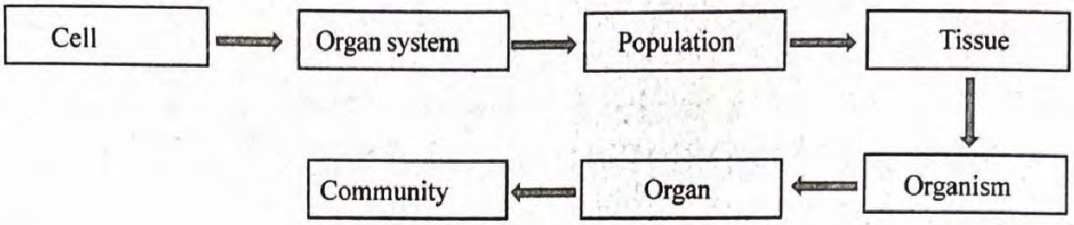
b. Which characteristics of these pathogens can speed up the spread of disease that they cause.? (1)

7. Write two main ideas that can be presented in a seminar about the topic; 'Role of online organizations in agricultural marketing' (2)

8. Select the statements from the given box that are related to the application of microbial fertilizers in agriculture. (2)

- Chemical pesticides are used regularly.
- Ensure adequate irrigation.
- Ensure the presence of biofertilizer in the soil.
- Apply chemical fertilizers properly.

9. A flow chart illustrating the organization of organisms is given below. Correct mistakes if any. (2)



Answer **any 3 questions from 10 to 13. Each carries 3 score.** **[3 x 3 = 9]**

10. Complete the table by writing the different taxonomic levels of **cat** according to the six kingdom classification. (3)

Domain	Eukarya
Kingdom	------(ii)--------
Phylum	------(iii)-------
-----(i)---------	Mammalia
Order	-------(iv)-------
Family	--------(v)-------
Genus	--------(vi) ------
Species	domesticus

11. Tabulate the given informations related to modern farming methods suitably. (3)

Give appropriate headings.

a. The soil is covered with polythene sheet.

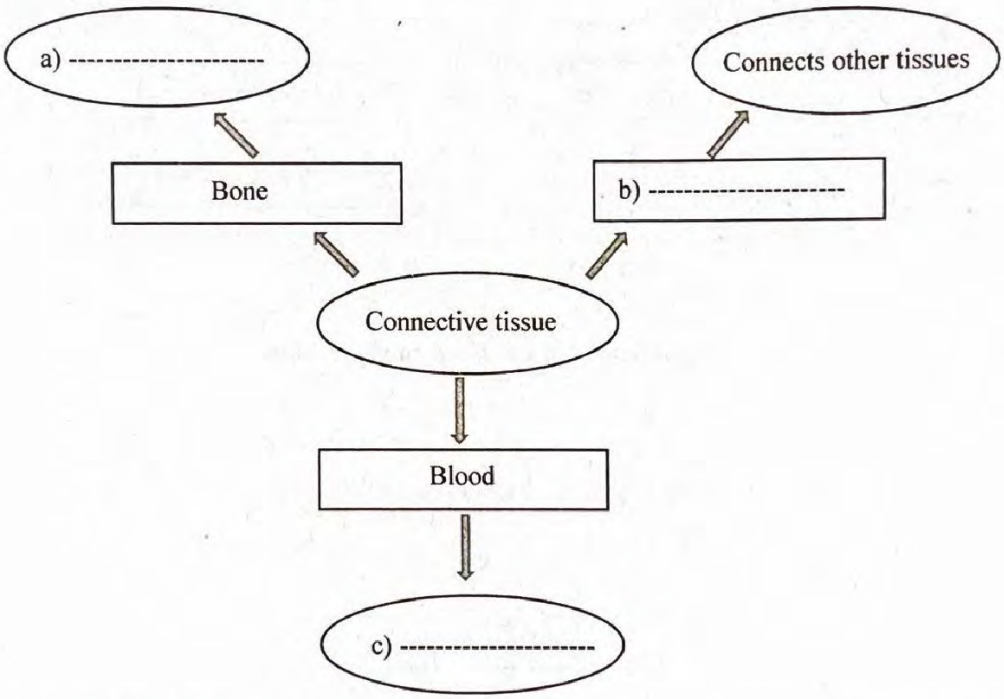
b. Temperature and moisture is constantly regulated.

c. The crop field is completely or partially covered by transparent polythene sheet.

d. Suitable crop is selected by studying the amount of nutrients, pH and water availability in the soil.

------(A) -------	------(B) -------
♦ ♦	♦ ♦

12. Complete the illustration suitably. (3)



13. Arrange column B and C in accordance with column A. (3)

Varities	Products	Sector
Muga	Honey	Pisciculture
Catla	Silk	Apiculture
Njodiyan	Meat	Sericulture