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E806

SECOND TERMINAL EVALUATION 2017

BASIC SCIENCE

Standard: VIII

Time : 2 hours
Total 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 subject is 40 minutes. The answer book must be returned to the teacher after writing each subject.

PHYSICS

Time : 40 min.
Total Score : 20

One score each for questions 1 to 6.

1. Which one among the following is used as a lubricant ?
   (Iron, Aluminium, Graphite, Copper) (1)
2. What is the focal length of a concave mirror of radius of curvature 24 cm.
   (24cm, 12 cm, 6 cm, 10 cm) (1)
3. Find the odd one out and write down the reason for it.
   (Acceleration, Velocity, Distance, Displacement) (1)
4. Find out the relationship in the first pair and fill up the second accordingly.
   Displacement in one second : Velocity
   change of velocity in one second : ..... (1)
5. Nanometer and parsec are units of length. Where is parsec used? (1)
6. One of the two identical solids of same mass floats on water while the other sinks. Which one has more volume? (1)

Answer any <u>FOUR</u> questions from 7 to 11. Each question carries 2 score. (4 x 2 = 8)

7. Find out the reasons for the following statements. (2)
   - Dams are constructed with large base
   - Astronauts wear special suits
8. It is easier to move an object by rolling than sliding.
   a) Relating with friction, give the reason for it. (1)
   b) Write down an instance where this principle is made use of. (1)

9. The diagram showing the magnetic lines of force when the north poles of two bar magnets are kept closer is shown in figure (1)

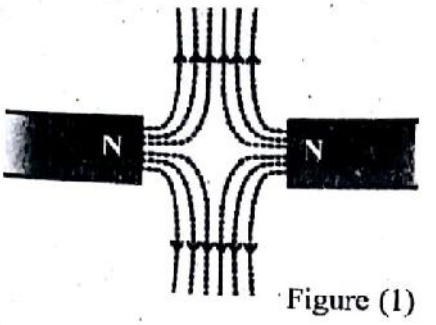


Figure (1)

Draw the magnetic lines of force if the magnets are kept as shown in figure (2)

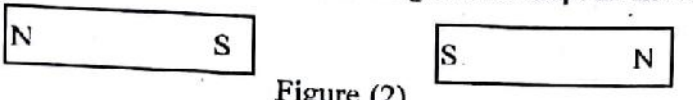
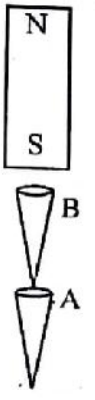


Figure (2)

10. Observe the diagram. A and B are two soft iron nails kept near a magnet as shown. They have gained magnetic property.



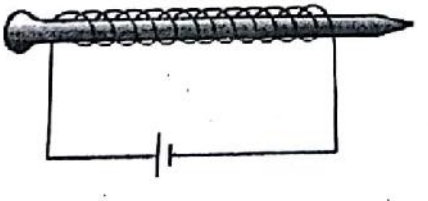
a) What is the polarity at the free end of A? (1)

b) How do the nails get magnetised? (1)

11. Draw a concave mirror of radius of curvature 3 cm and label its centre of curvature, principal focus and pole. (2)

Answer any <u>TWO</u> questions from 12 to 14. Each question carries 3 score. (2 x 3 = 6)

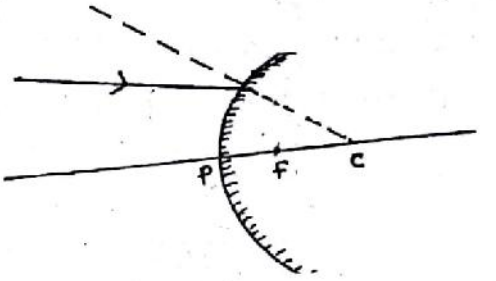
12. Answer the questions observing the given diagram



a) What is the arrangement shown? (1)

b) Write two methods to increase the strength of this arrangement. (2)

13. Observe the figure and answer the questions given below



a) What type of mirror is this? (1)

b) Complete the figure by drawing the path of reflected ray. (2)

14. A wooden block of weight 20 N is placed on the lime powder in two different ways is shown in the figures. The area of contact of block in figure (2) with the lime powder is four times than that in figure (1). The pressure exerted by the wooden block in figure (2) is 200 pascal

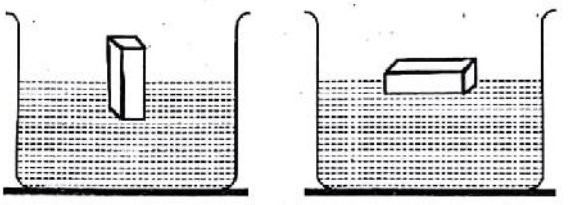


Figure (1) Figure (2)

a) Calculate the thrust in figure (1)? (1)

b) What is the pressure in figure (1)? (1)

c) When surface area is increased pressure decrease. Give a daily life situation, where this is utilised. (1)

CHEMISTRY

Score 20

Time 40mts

Attempt any three of the following from 1to 5 (One score each)

1. Find the relation and fill up the blank

   1. Common Salt solution : Distillation

   2. Mixture of Ethanol and Methanol : ..... (1)

2. Aluminum foil is used to pack food. Which property of Aluminium is used here (1)

3. Some statements related to solutions are given below. Choose the correct Statements

   i) All Solutions are liquids

   ii) All true Solutions are homogenous mixture.

   iii) Substance that is present in greater quantity in a solution is called solute. (1)

4. Choose the correct answer from bracket and fill in the blanks

   (Heat, Light, Electricity)

   Magnesium + Hydrochloric Acid → Magnesium Chloride + Hydrogen +..... (1)

Attempt any four of the following from 5 to 9 (Two score each)

5. Complete the table suitably

Metal	Use	Property
Tungsten	a.....	High Melting Point and High Ductility
Copper	Cooking Vessels	b.....

6. From the statements given below find the Statement related to chemical change

   a) No new substances are formed

   b) New molecules are formed.

   c) Permanent change

   d) Temporary change

7. Boiling point of water is 100°C and freezing point of water is 0°C.

   a) In which state water exist at -1°C usually? (1)

   b) In between which temperatures usually water exist in liquid state ? (1)

8. Some details about a heterogeneous mixture are given below. Analyse them and answer the following questions.

   - ❖ Path of light inside the mixture can be seen
   - ❖ Particles cannot settle down
   - ❖ Particles cannot be seperated by filtration

   a) Which type of mixture is this ? (1)

   b) Give an example for mixture of this type that is used in daily life. (1)

9. Name of some metals are given below . Choose the correct answer from them for the following questions

(Gold, Sodium, Iron, Copper, Calcium, Silver)

(i) Which of these metals is stored in Kerosene ? (1)

(ii) Which metal is used as solvent in brass ? (1)

Attempt any three of the following from 10 to 13 (3 marks each)

10. Analyse the given figures and answer the following questions.

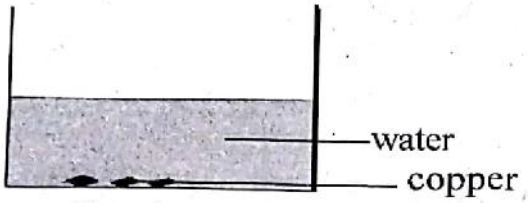


Figure A

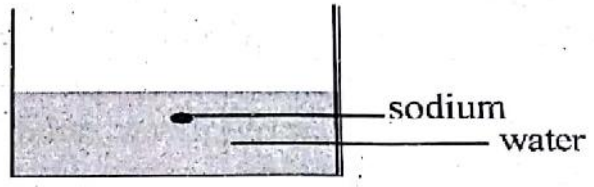


Figure B

a) In which beaker reaction takes place? (1)

b) After reaction phenolphthalein is added to both beakers. What changes are observed in both beakers ? (2)

11. Usually iron window bars are coated with paint to prevent corrosion.

a) Write any two factors that favour the corrosion of Iron (2)

b) When Iron is coated with paint corrosion is reduced. Why? (1)

12. Analyse the table and complete it. (3)

Element	Latin Name	Symbol
Sodium	a	Na
Iron	Ferrum	b
c	Cuprum	Cu

13. "Excess use of artificial soft drinks causes health issues"

a) Name an acid commonly present in artificial drinks (1)

b) Mention two health issues that are caused due to excess usage of artificial drinks (2)

BIOLOGY

Time : 40 minutes
Total Score : 20

Answer all questions from 1 to 3. Each question carries 1 score. **(3 x 1 = 3)**

1. Lysosome is the cell organelle which secretes strong digestive enzymes. In what way does it help animal cells?
   (a) To produce energy
   (b) To destroy foreign materials
   (c) To produce proteins
   (d) To give firmness to cell

2. Read the statements given below. Make corrections, if any in the portion underlined.
   (a) Chordata is a phylum.
   (b) Genus is a group of organisms that can produce fertile offsprings through sexual reproduction.
   (c) Genus join to form family.

3. Pick the correct statement related to virus from those given below.
   (a) These are non-motile, heterotrophic unicellular / multicellular organisms.
   (b) These are unicellular organisms without nucleus.
   (c) These have only protein coat and genetic material.
   (d) These are nucleated unicellular organisms.

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

4. Do Loranthus and vanda have any difference in their Ecological interactions with mango tree? Write your opinion.

5. Analyse the indicators given below and answer the questions.
   (a) Relatively large nucleus
   (b) Abundant cytoplasm
   (c) Thin cell wall

   (A) Identify and name the tissue.
   (B) Write the function of the cells in this tissue.

6. Prepare suitable pairs using the words given in the box as per the model given below.

Model : M.J. Schleiden : Discovery of plant cell

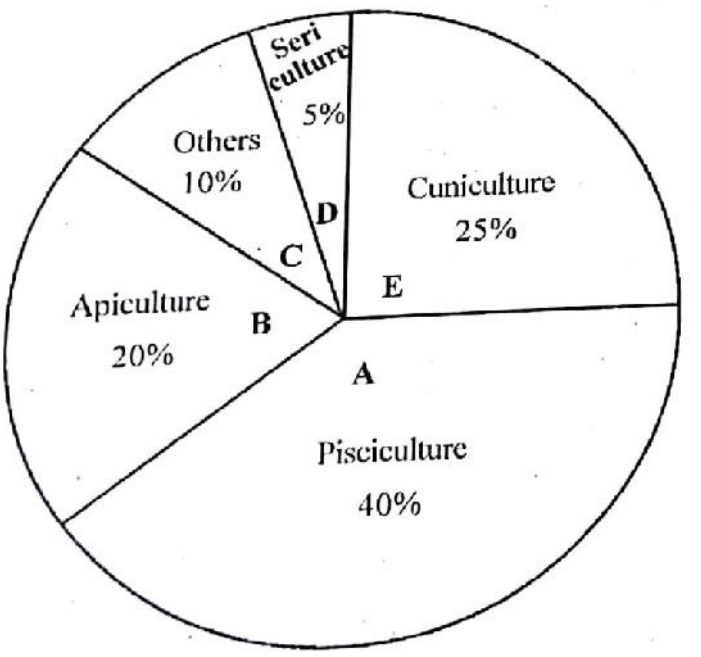
John Ray
M.J.Schleiden
Robert H. Whittaker
Car Wolse
Species
Six Kingdom classification
Discovery of plant cell

7. Waste management methods of three families in a housing colony are given below.

   (a) Disposal of waste in non-residential public places.
   (b) Used as fertilizer in terrace farming.
   (c) Throwing wastes in house premises.

   (i) Which waste management method do you prefer ? Why ?
   (ii) Write any other two eco-friendly waste management methods.

8. Analyse the survey result of various agricultural sectors in a Panchayath given in the pie diagram (A, B, C, D, E) and answer the following questions.



   (a) Which organism is coming under the agricultural sector with highest percentage?
   (b) Muga variety is related to which sector?
   (c) Write the percentage of farmers who rear rabbits?
   (d) Some farmers cultivate fruits and vegetables. Where can these farmers be placed in the above pie diagram?

9. (a) What is the common feature of varieties given in the box ?

Muvandan, Vechoor, Njalipoovan, Malabari

(b) Is it essential to retain these varieties ? Why ?

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

10. 'Each organism has different name at different places'.
    (a) What is the scientific method to overcome this problem ?
    (b) Write the scientific names of Tiger and Paddy.

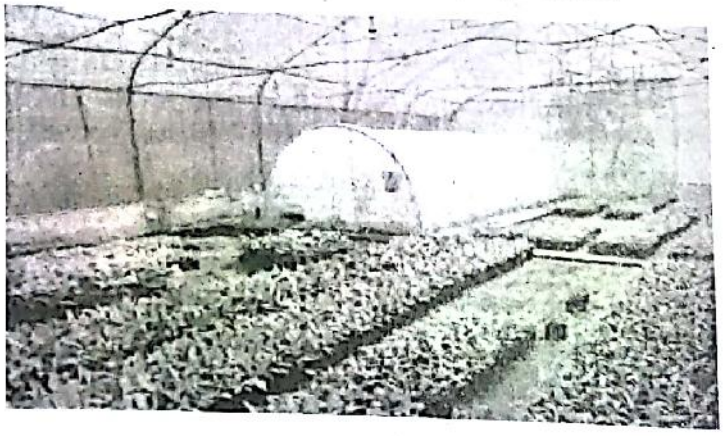
11. A statement related to pest control is given below. Analyse it and answer the questions.

Instead of total destruction of pests prevent the multiplication of pests.

    (a) Which pest control method is mentioned here ?
    (b) Write any two pest control measures related to this method.

12. Identify and write the levels of classification.
    (a) Phylum which includes human beings.
    (b) Family which includes animals with withdrawable claws.
    (c) Class which includes lion and rabbit.

13. Observe the following illustration and answer the question.



    (a) Identify and write the hitech farming method illustrated above.
    (b) What are the benefits of this farming method ?