

SAMAGRA SHIKSHA, KERALA  
SECOND TERMINAL EVALUATION 2018-19  
**BASIC SCIENCE**

**E 806**

Standard: VIII

Time : 40 min.  
Total Score : 20

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**Instructions**

- The total cool off time for Physics, Chemistry and Biology is 15 minutes. Read the questions carefully and understand them during this time.
  - Answer 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.
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**PHYSICS**

**One score each for questions 1 to 4.**

**(4 x 1 = 4)**

1. Using the relation between the terms in the first pair, complete the second. (1)  
Thrust : N  
Pressure : .....
2. Which is a solid lubricant? (1)  
(Rubber, Steel, Graphite)
3. Select the correct statement. (1)
  - a) The north pole of the earth's magnet is near the geographic north pole.
  - b) The south pole of the earth's magnet is near the geographic north pole.
  - c) The south pole of the earth's magnet is at the equator.
4. Big convex mirrors are used in sharp curved roads. Write down another situation in which convex mirror is used. (1)

**Answer any FIVE questions from 5 to 10. Each question carries 2 scores.**

**(5 x 2 = 10)**

5. Tabulate the following as contact force and non contact force. (2)
  - a) The repulsion between magnetic like poles.
  - b) Pushing a trolley.
  - c) Opening a door by pushing it.
  - d) Mango falling from a mango tree.

6. An iron rod and a steel rod of equal size are placed near a magnet. Complete the following table based on the property of these substances. (2)

Which rod acts as a stronger magnet?	(a) .....
Which rod retains the magnetic power even after removed it from the magnet?	(b) .....

7. Write any two properties of magnets. (2)

8. i) Complete the table on the basis of the relation between the given quantities.

Thrust	Area of the surface	Pressure
10 N	2 m <sup>2</sup>	(a) .....
10 N	(b) .....	10 N/m <sup>2</sup>

- ii) With the help of the completed table find the relation between pressure and surface area when the thrust being the same. (1)

9. The magnetic flux lines between two magnetic poles are drawn in the figure. (1)



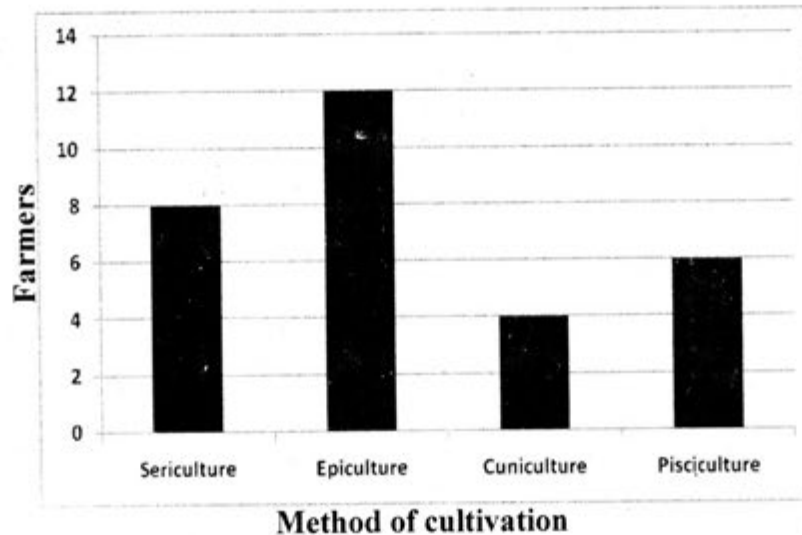
- a) Name the poles represented by A and B. (1)  
 A .....  
 B .....
- b) Give the principle helped you to write down this answer. (1)
10. An object of height 2 cm is kept in front of a concave mirror. (1)
- a) Find out the height of the image formed if the magnification is -3 (1)
- b) At what position of the object does the magnification become positive. (1)

Answer any **TWO** questions from 11 to 13. Each question carries 3 score. (2 x 3 = 6)

11. a) Name the instrument used to measure atmospheric pressure. (1)  
 b) Name any one factor that influences the atmospheric pressure. (1)  
 c) Write a situation where atmospheric pressure is used effectively. (1)
12. a) Which are the materials required to make an electromagnet? (1)  
 b) Using these materials, how can you make an electromagnet? (1)  
 c) Suggest a method to increase the strength of an electromagnet? (1)
13. The size of image is found equal to that of an object in an experiment using concave mirror. (2)
- a) Draw the ray diagram of the formation of image in the above case. (2)
- b) Write down two properties of the image other than the above. (1)

Answer any 3 questions from 10 to 13. Each question carries 3 score. (3 x 3 = 9)

10. The graph related to different agricultural sectors are given below. Analyse and answer the questions.



- Name the organisms related to the cultivation adopted by most of the farmers.
  - Name the method of cultivation related with rearing of silk worms.
  - Write the names of any two fish varieties reared for food.
11. Rearrange column B and C according to column A.

Kingdom	Some organisms	Peculiarities
6.	Articles made of iron in the ground for a period of 10 days.	

- Write down any two factors which influence rusting of Iron.
  - Suggest a method to prevent corrosion of Iron.
7. 96 g Potassium nitrate is dissolved in 200 g water at 30°C (This is the maximum amount of Potassium nitrate that can be dissolved in it.)
- What do you mean by the term solubility?
  - Find out the solubility of Potassium nitrate in water at 30°C.
8. Take little Silver bromide in two dry watch glasses. Wrap one of them with a black paper. Keep both of them in sunlight for some time.
- What do you observe?
  - Which form of energy is responsible for the chemical change taking place here?
9. A few examples of mixtures are given in the box.

Air, Salt and sand, Golden ring, Muddy water

- a) Which of these are heterogeneous mixtures?  
 b) "All solutions are homogeneous mixtures". Do you agree with this statement?

**Attempt any three of the following questions from 10-13 (3 score each)**

**(3x3 = 9)**

10. Take a piece of Magnesium in a test tube. Add 5 ml of dilute Hydrochloric acid to it.

- a) Identify the gas formed.  
 b) Write down the chemical equation of the above reaction.  
 c) Identify the type of thermochemical reaction which occurs here.

11. Three shining Iron nails are kept under the following conditions.

A	Kept open in a test tube containing wet cotton
B	Kept in a closed container containing quick lime
C	About half portion of the nail is kept immersed in Sodium chloride solution

- a) Which of these nails get rusted?  
 b) Identify the nail which does not undergo rusting. Give reason
12. Three different substances are taken in three different beakers.

Beaker A	Beaker B	Beaker C
Copper sulphate Solution	Dilute rice water	Chalk powder + water

Analyse the table and answer the following questions

- a) Which are the solute and solvent of the solution in beaker A?  
 b) A beam of light is passed through each beaker. In which of the beakers is the path of light beam visible?  
 c) In which beaker, the components can be separated by using a filter paper?
13. Complete the table suitably

Metal	Characteristics	Use
Gold	.....(a).....	Ornaments
Aluminium	Thermal conductivity	.....(b).....
Copper	.....(c).....	Electrical appliances

## BIOLOGY

Time : 40 min.  
Total Score : 20

Answer all questions from 1 to 3. Each question carries 1 score.

(3 x 1 = 3)

1. Correct the mistakes if any in the underlined part.
  - (a) Taxonomic keys are the scientific indicators used for identifying and classifying plants and animals.
  - (b) Genus is the basic level of classification.
  - (c) The first word of the scientific name indicates the genus and the second word indicates the species.
2. Find the odd one. Write the common feature of others.  
Grey giant, White Leghorn, White giant, Ankora
3. Give reason.  
It is not possible to illustrate a food chain using the following organisms.

Snake, Rat, Eagle

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

4. Using the given indicators, identify the corresponding modern agricultural practices.
  - (a) Agricultural practice which control weeds and limit irrigation by covering the soil using polythene sheet.
  - (b) Agricultural practice to increase crop yield many times greater than regular methods, controlling the temperature and moisture.
  - (c) Roots of plants are grown into air and nutrients are directly sprayed to it.
  - (d) Plants grown in nutrient solution.
5. Observe the given diagram.



- (i) Identify and name the given cell organelle.
- (ii) Write any function of the organelle.

6. Complete the table given below.

A	B	C
Rat	Primary Consumer	(a) .....
Paddy	(b) .....	First trophic level
Snake	(c) .....	Third trophic level
Eagle	Tertiary consumer	(d) .....

7. The peculiarities of two plant tissues when observed through a microscope is given below.

- (A) Composed of cells that are thick only at the corners of the cell wall.
- (B) Composed of cells with the simplest structure.

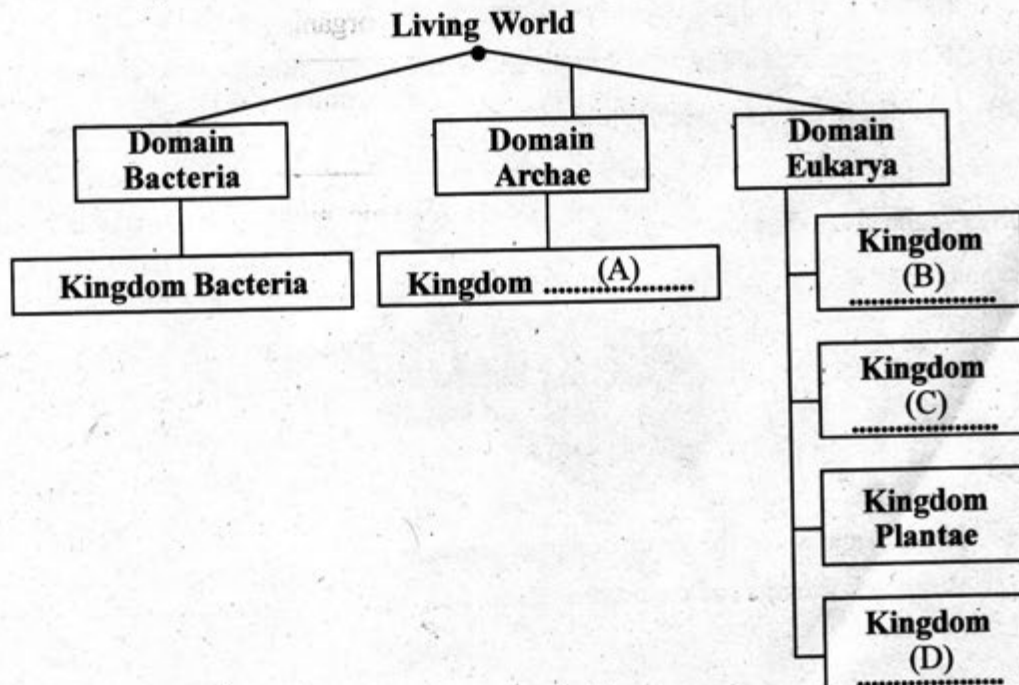
- (i) Identify and name the plant tissues A and B.
- (ii) Write the function of B.

8. Name of scientists who contributed in the field of taxonomy are given below. Identify their contribution which is given in the box and make pairs.

- (A) Carl Woese
- (B) John Ray
- (C) Theophrastus
- (d) R.H. Whittaker

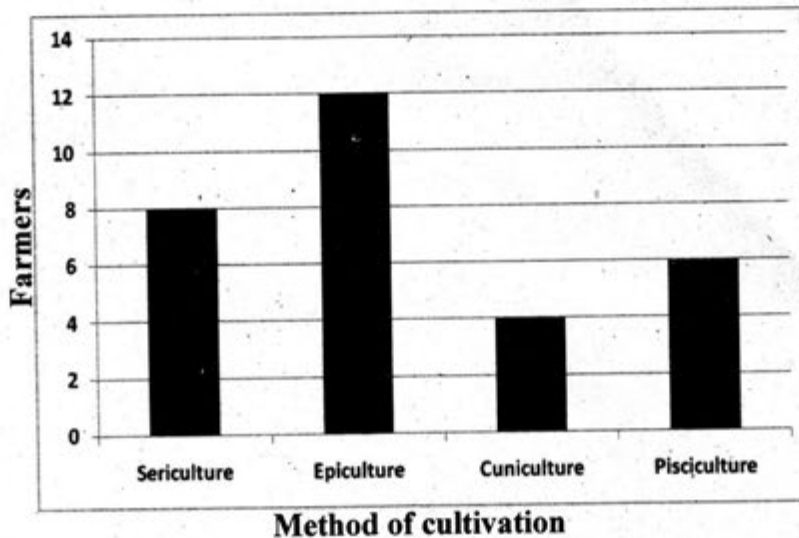
- |       |   |
|-------|---|
| (i)   | Classified the organisms as those with red blood cells and those without red blood cells. |
| (ii)  | Classified plants into annuals, biennials and perennials.                                 |
| (iii) | Six kingdom classification.   |
| (iv)  | Five kingdom classification.  |
| (v)   | Used the term species for the first time.   |

9. Various domains and kingdoms included in the six kingdom classifications are given below. Complete the illustration properly.



Answer any 3 questions from 10 to 13. Each question carries 3 score. (3 x 3 = 9)

10. The graph related to different agricultural sectors are given below. Analyse and answer the questions.



- Name the organisms related to the cultivation adopted by most of the farmers.
- Name the method of cultivation related with rearing of silk worms.
- Write the names of any two fish varieties reared for food.

11. Rearrange column B and C according to column A.

Kingdom (A)	Some organisms included in the kingdom (B)	Peculiarities (C)
(1) Protista	(a) Animals	(i) Unicellular organisms without Nucleus.
(2) Animalia	(b) Amoeba	(ii) Autotrophic, multicellular, nonmotile organisms.
(3) Monera	(c) Fungi	(iii) Heterotrophic, multicellular organisms that have the capacity of locomotion.
X	(d) Bacteria	(iv) Unicellular organisms with nucleus

12. Evaluate the given statement and answer the questions.

**“Extinction of indigenous varieties is a great loss”**

- Do you agree with this statement? Why?
- Write the names of any two indigenous Mango varieties.

13. Identify the examples of given ecological interactions and answer the questions.

(i) Mango tree and Loranthus.

(ii) Mango tree and Vanda.

(a) Name the ecological interactions (i) and (ii).

(b) Write the name and peculiarity of another ecological interaction.