

SECOND TERMINAL EVALUATION 2019-20  
**BASIC SCIENCE**

Standard: VIII

 Time : 1½ Hour  
 Total Score : 60
**Instructions**

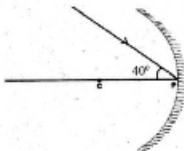
- The total cool off time Physics, Chemistry and Biology is 15 minutes. Read the questions carefully and understand them during this time.
- Answers are to be written in the order, Physics, Chemistry and Biology. The time for each section is 40 minutes. The answer books must be returned to the teacher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

**PHYSICS**
 Score : 20  
 Time : 40 Minutes

 Answer any **THREE** questions from 1 to 4. Each question carries 1 score.

(3 x 1 = 3)

- Which of these materials will not be attracted by a magnet?  
 (Nickel, Iron, Copper, Cobalt)
- Which of the following statements is true about mirrors?
  - Radius of curvature of a spherical mirror is half of its focal length.
  - Image formed by a convex mirror is always virtual.
  - The light rays parallel to principal axis of a convex mirror converges to its principal focus after reflection.
- Find the angle of reflection, if a ray of light is incident on a concave mirror at the pole making an angle  $40^\circ$  to the principal axis.



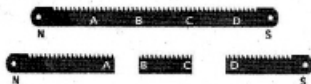
- (0,  $30^\circ$ ,  $40^\circ$ ,  $50^\circ$ )
- Which of the following is the unit of thrust?  
 (Bar, N,  $N/m^2$ , Pascal)

Answer any **FOUR** questions from 5 to 9. Each question carries 2 score.

(4 x 2 = 8)

5. A magnetised hacksaw blade is cut into pieces as shown in figure.

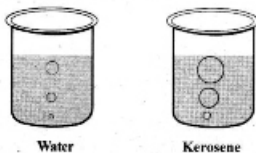
(1+1)



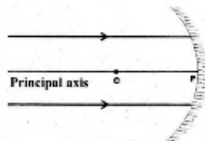
- a. Find the polarity of the edges B and D  
b. Suggest a method to make the hacksaw blade into a permanent magnet?
6. In the figure, south poles of two bar magnets are placed facing one another. Redraw the figure and illustrate magnetic field lines? (2)



7. Same quantity of water and kerosene are taken in two identical beakers. From the bottom of the two beakers, air bubbles are rising as shown in figure? (1+1)



- a. What is the reason for the growth in size of the air bubble in both beakers as it rises upwards?  
b. What is the reason for the large size of the air bubbles in kerosene compared to that in water?
8. Astronauts wear special clothes during space travel. Explain the reason? (2)
9. The rays of light passing parallel to the principal axis of a spherical mirror is shown in figure? (1+1)



- a. Draw the reflected rays and mark principal focus of the mirror?  
b. Focus of the concave mirror is always real. Why?

Answer any **THREE** questions from 10 to 13. Each question carries 3 score.

(3 x 3 = 9)

10. A ball rolling on a level floor gradually slows down. (1+1+1)
- Which force causes the ball to slow down?
  - Suggest two methods to reduce this force.
  - What type of force is experienced here? (contact/non contact)
11. A and B are two magnetic materials. Analyse their properties and answer the questions. (2+1)
- A is easily magnetised compared to B.
  - Ability to retain the magnetism thus acquired is more for B than that for A
- Which of these is the most suitable material for making a permanent magnet? Explain why?
  - Write the name of a substance used for making permanent magnets?
12. Two identical bricks weighing 20N are placed in two trays filled with sand as shown in figure? (2+1)

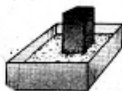


Figure 1



Figure 2

- In which of the above situations pressure experienced is more? (figure 1/figure 2) Why?
  - What are the factors that influence pressure?
13. A magnetic needle is suspended so as to move freely in a horizontal plane. (1+1+1)
- In which direction, north pole of the magnetic needle is pointing,
  - Give reason for it?
  - The case of magnetic compass is not made of soft iron. Why?

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## CHEMISTRY

Score : 20

Time : 40 Minutes

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Answer any Three questions from 1 to 4 (1 Score each)

(3x1=3)

1. Identify the best electric conductor from the following metals.  
(Iron, Aluminium, Silver) (1)
2. Which among the following is a chemical change. (1)
- Water is becoming ice
  - Burning of firewood
  - Melting of wax
  - Water is becoming water vapour
3. Name one chemical substance added to artificial drinks for obtaining sour taste.  
(Tartrazine, Phosphoric acid, Allyl hexanoate) (1)
4. Find the relation and complete. (1)
- |              |                          |
|--------------|--------------------------|
| Mercury cell | : Watches, Calculators   |
| -----        | : Laptops, Mobile phones |

**Answer any Four questions from 5 to 9 (2 Scores each)**

**(4x2=8)**

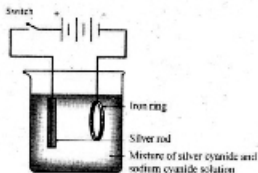
5. Classify the following mixtures into homogeneous and heterogeneous. (2)
- |   |
|---|
| Sugar solution, Salt and sand, Air, Muddy water |
|---|
6. The freshly cut surface of sodium metal has a shining appearance.  
a) Which characteristic property of metal is exhibited here? (1)  
b) Sodium metal is kept in kerosene. Give reason. (1)
7. Some metals are given.  
[ Zinc, Iron, Magnesium, Copper ]
- a) Which one of these metals reacts vigorously with dilute hydrochloric acid? (1)  
b) Which gas is evolved when metals react with dilute hydrochloric acid? (1)
8. Some statements are given below. Pick out the statements suitable for true solutions. (2)
- (i) If an intense beam of light is passed, the path of the light becomes visible.
  - (ii) Components cannot be separated by filtration using a filter paper.
  - (iii) The substance settles down on standing for some time.
  - (iv) If an intense beam of light is passed, the path of the light does not become visible.
9. Take some silver bromide in two dry watch glasses. Wrap one of these with a black paper and keep both of them in sunlight for some time.
- a) Write the observation. (1)  
b) Write the reason for the change. (1)

**Answer any Three questions from 10 to 13 (3 Scores each)**

**(3x3 = 9)**

10. Give reasons for the following.
- (i) Butter milk is not stored in Aluminium vessels. (1)
  - (ii) Copper is used for making electric wires. (1)
  - (iii) Iron equipments in coastal areas undergo rusting quickly. (1)
11. Potassium permanganate is heated in a dry test tube.
- a) Which is the gas produced in this reaction? (1)  
b) Write a test to identify this gas. Write down your observation. (2)
12. A saturated solution is prepared by dissolving salt in water, taken in a beaker.
- a) What do you mean by saturated solution? (1)  
b) Suggest a method to dissolve more salt in the saturated solution. (1)  
c) If this solution is allowed to cool slowly and carefully to room temperature, solute does not separate out. Give the name of such solutions. (1)

13. The arrangement of coating silver on iron ring is given below.



- a) Which form of energy is used in this process? (1)  
 b) Write the name of this process. (1)  
 c) Which solution is to be taken for coating copper on an iron ring? (1)

## BIOLOGY

Time : 40 minutes

Score : 20

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

- Identify the relation between the words of first pair and complete the second pair suitably  
 (a) Mushroom : Fungi                      Amoeba : .....  
 (b) Cat : Felis domesticus              Crow : .....
- Find the odd one from the following and write the common feature of others  
 Murrah, Niliravi, Jamnapari, Bhadawari
- Rewrite the following sentences correctly, if there is any error in the underlined part  
 (a) Aristotle is known as the father of Botany  
 (b) Morera includes unicellular organisms with distinct nucleus  
 (c) Five kingdom classification was introduced by Robert H Whittaker
- Suggest any two modern farming techniques that enable farming without being affected by the adverse change in climate

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

- "Don't use chemical fertilizers or chemical pesticides in agricultural fields while applying microbial fertilizers." This is the instruction given by an agricultural officer in a training programme conducted for farmers  
 (a) What could be the reason for giving such an instruction ?  
 (b) What are the other precautions to be taken while applying microbial fertilizers ?
- Name of two scientists related to taxonomy is given below. Write their contributions in this field.  
 (i) Charakan                      (ii) John Ray

7. Characteristic features of a microbe is given below.
- ◆ Can live only inside a live cell.
  - ◆ On reaching the host cell, multiply using the host's material.
- (a) Which microbe is mentioned here ?
- (b) Write the name of two such microbes which cause diseases in human beings.
8. Write the name of two bacteria present in the microbial fertilizers applied by farmers to increase the nitrogen content of the soil.
9. 'Before every farming, tillage of soil is inevitable.'  
Do you agree with this statement? Why?

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

10. Scientific methods of agriculture and the animals related to the fields are given in the table below. Complete it suitably

Ankora	(i) .....	(ii) .....
Njodiyar	Apiculture	(iii) .....
Catla	(iv) .....	Rearing of fish
Orchid	(v) .....	(vi) .....

11. Write the taxonomic hierarchy of coconut tree by choosing appropriate terms from the box

nucifera	Plantae	cocos	Series
Dicotyledonae	Genus	Monocotyledonae	

Domain	Eukarya
Kingdom	(i) .....
Phylum	Angiospermophyta
Class	(ii) .....
(iii) .....	Calypinae
Family	Urecaceae
(iv) .....	(v) .....
Species	(vi) .....

12. The scientific name of Tiger is *Panthera tigris*.
- (a) What do the words 'Panthera' and 'tigris' indicate ?
- (b) What are the advantages of giving scientific name to organisms ?
- (c) Name the scientist who proposed the scientific naming of organisms ?
13. The placard prepared by students for farmer's day rally is given below.

Sustainable agriculture - ecofriendly agriculture

Write three advantages of practising this message