

# Maharashtra State Board

## Class VIII Science

### Board Paper – 2

Time: 2 hrs

Max. Marks: 60

**Note:**

1. All questions are compulsory.
2. The marks related to the question are given in brackets.

**I. Choose the correct alternative:**

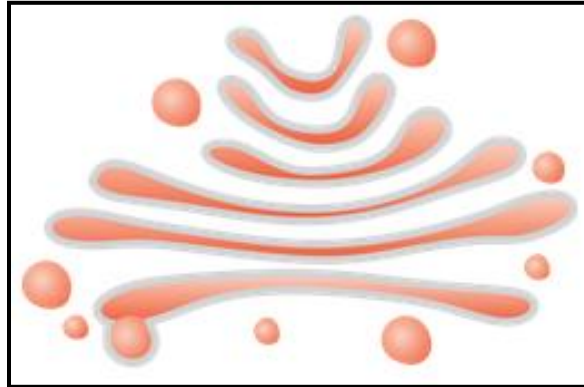
[15]

1. Isotopes of oxygen are given below. They have

$^{16}\text{O}$ 15.9949 99.76%	$^{17}\text{O}$ 16.9991 0.04%	$^{18}\text{O}$ 17.9991 0.20%
Stable	Stable	Stable

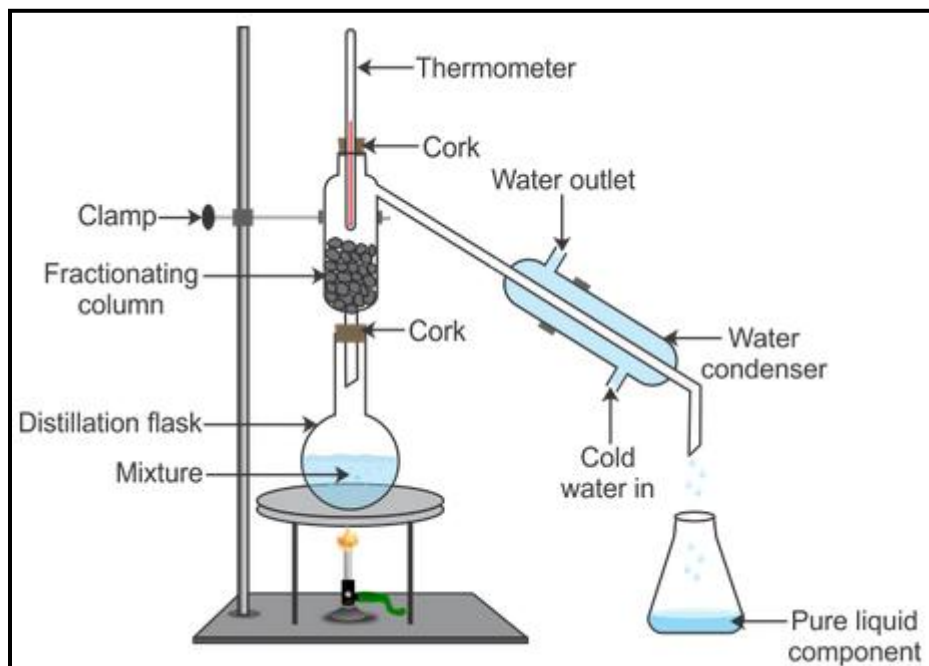
- (a) Same atomic number but different atomic mass number
  - (b) Same atomic mass number but different atomic number
  - (c) Same atomic number and atomic mass number
  - (d) Different atomic number and atomic mass number
2. Which of the following is not a member of the Solar System?
- (a) Asteroid
  - (b) Comet
  - (c) Pole Star
  - (d) Meteor
3. Which of the following is a combination reaction?
- (a)  $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$
  - (b)  $2 \text{Pb}(\text{NO}_3)_2 \rightarrow 2 \text{PbO} + 4 \text{NO}_2 + \text{O}_2$
  - (c)  $2 \text{AgCl} \rightarrow 2 \text{Ag} + \text{Cl}_2$
  - (d)  $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$

4. The given cell organelle synthesises lysosomes. Identify the cell organelle.



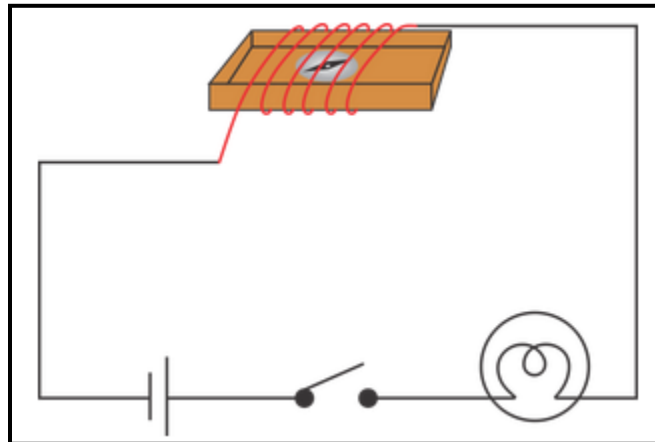
- (a) Ribosome
  - (b) Endoplasmic reticulum
  - (c) Vacuole
  - (d) Golgi body
5. At a personal level, we can conserve resources by
- (a) Avoiding wastage of paper
  - (b) Planting more trees
  - (c) Turning off electrical appliances when not in use
  - (d) All of the above
6. What is common between tuberculosis and measles?
- (a) Both are caused by the same pathogen.
  - (b) Both are air-borne diseases.
  - (c) Both have the same incubation period.
  - (d) Both show the same symptoms.
7. The largest wind energy farm in India is in
- (a) Andhra Pradesh
  - (b) Assam
  - (c) Gujarat
  - (d) Rajasthan
8. A bar of steel can be permanently magnetised by
- (a) Rubbing a bar magnet at its end
  - (b) Rubbing a bar magnet along its length
  - (c) Rubbing a bar magnet at its centre
  - (d) None of the above

9. In the given experiment, a mixture of methanol and ethanol is taken in a distillation flask. Which of the liquid components is obtained first after the fractional distillation process?



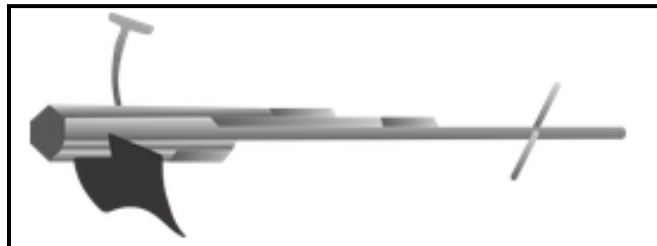
- (a) Methanol  
(b) Ethanol  
(c) Both methanol and ethanol  
(d) Water
10. Which allotrope of carbon is a good conductor of electricity?  
(a) Lamp black  
(b) Graphite  
(c) Diamond  
(d) Fullerene
11. Soil fertility can be increased by  
(a) Altering the pH of the soil  
(b) Altering air content of the soil  
(c) Adding fertilisers to the soil  
(d) All of the above
12. Which of the following statements is incorrect?  
(a) Acid rain is caused by the presence of acids in rain.  
(b) Acid rain has no effect on aquatic life.  
(c) Acid rain can be reduced by using cleaner fuels.  
(d) Acid rain corrodes water pipes.

**13.** What will you observe in a compass needle shown in the figure below when the switch is moved to the ON position?



- (a) It shows deflection and then returns to its original position.
- (b) It shows deflection and retains it till the current is switched OFF.
- (c) It keeps showing deflections on both sides continuously.
- (d) It does not show any deflection.

**14.** Which agricultural implement is shown below?



- (a) Plough
- (b) Cultivator
- (c) Hoe
- (d) Dhekli

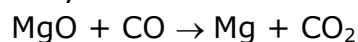
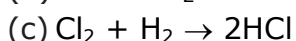
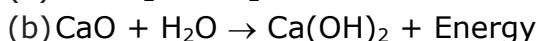
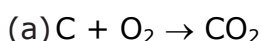
**15.** Which of the following statements is correct?

- (a) The pressure exerted by the atmosphere is known as atmospheric gravity.
- (b) Atmospheric pressure on the top of a high mountain is much more than that at its base.
- (c) Atmospheric pressure acts in all directions.
- (d) Vacuum is a space which has only air.

**II. Answer the following:****[10]****16.** How does a rubber sucker work?**17.**

(a) Name the varieties of cow which can be crossed with the Indian cow for better milk yield.

(b) Which varieties of cows are selected for breeding from Maharashtra?

**18.** Identify the substance oxidised and reduced in the given reaction. Give reasons for your answer.**19.** How can we locate the brightest star in the sky?**20.** List any two steps which can be taken to conserve wildlife.**III. Answer the following:****[15]****21.** State the uses of a magnetic compass.**22.** State three features of the nuclear model of an atom put forward by Rutherford.**23.** Find the oxidation, reduction and exothermic reactions from the following chemical reactions:**24.** Differentiate between cell wall and cell membrane.**25.** Write a short note on enteritis covering the following points:

(a) Mode of infection

(b) Symptoms

(c) Preventive measures and treatment

**IV. Answer the following in brief:****[20]****26.** Describe the construction of a dry cell with the help of a neat labelled diagram.**27.**

(a) What is meant by a chemical equation?

(b) What are the steps of writing a chemical equation?

**28.** Give four uses of metals.**29.** Name the following:

(a) Preparation of dead or weakened microbes which are introduced into a healthy person to protect him from a particular disease in the future

(b) Medicines obtained from microorganisms which are used to kill or stop the growth of disease-causing microorganisms

(c) Process of conversion of sugar into alcohol by yeasts

(d) Product obtained by decomposition of plant and animal wastes by microorganisms

**30.** List the different types of agricultural implements along with their uses.