Class VIII Session 2025-26
Subject - Science
Sample Question Paper - 10

Time Allowed: 3 hours **Maximum Marks: 80**

General Instructions:

1. The question paper consists of 34 questions and is divided into four sections, A, B, C and D.
2. All questions are compulsory.
3. Section A comprises question numbers 1 to 15. These are multiple choice questions carrying one mark each. You are to select one most appropriate response out of the four provided options.
4. Section B comprises question numbers 16 to 22. These are SAQs carrying two marks each.
5. Section C comprises question numbers 23 to 31. These are SAQs carrying four marks each.
6. Section D comprises question numbers 32 to 34. These are SAQs carrying five marks each.

Section A

1. Paddy can be grown in **[1]**

   a) rainy season
   b) summer
   c) autumn
   d) winter

2. Potato blight is caused due to: **[1]**

   a) fungi
   b) bacteria
   c) virus
   d) protozoa

3. The buried dead plants get converted to _____ due to high temperature and pressure underneath the Earth. **[1]**

   a) Coal
   b) Rocks
   c) Bacteria
   d) Metal

4. Higher efficiency in the combustion of solid fuel cannot be achieved by **[1]**

   a) Supplying correct quantity of combustion air
   b) Adopting efficient - fuel firing technique and equipment.
   c) Proper fuel preparation.
   d) Keeping the the gas exhaust temperature very high.

5. Which of these is extinct? **[1]**

   A. Tiger
   B. Wild Ass
   C. Dinosaur
   D. Asiatic Lion

   a) Only C
   b) Only D

c) Only B

d) Only A

6. Male gametes are also called **[1]**

a) egg

b) Both antherozoid and sperm

c) sperm

d) antherozoid

7. Which microorganism causes AIDS? **[1]**

a) Virus

b) Fungi

c) Bacteria

d) Protozoa

8. Which of the following statements are correct? **[1]**

I. Pressure in liquids and gases always act downwards.

II. We start bleeding on reaching higher altitudes due to decreased atmospheric pressure there.

III. Camels have broad feet to decrease pressure on sand.

IV. Force is equal to pressure multiplied by area.

a) I, III and IV only

b) I, II and III only

c) II, III and IV only

d) III and IV

9. Friction can be decreased by _____ . **[1]**

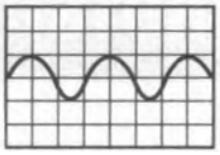
a) all of these

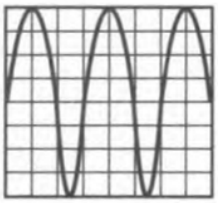
b) using ball bearings

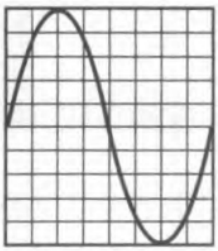
c) using lubricants

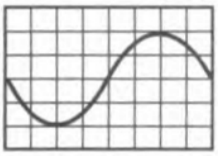
d) making surface smooth

10. Which sound wave shown here is high-pitched but soft? **[1]**

a) 

b) 

c) 

d) 

11. Solid NaCl is a bad conductor of electricity because **[1]**

a) in solid state, there are no acids

b) in solid state, there are no ions

c) in solid NaCl, ions cannot move freely

d) in solid NaCl, there are no electrons

12. Tsunami means **[1]**

a) flood

b) earthquake

c) eruption of volcano in sea

d) earthquake under sea

13. A man standing in front of a special mirror finds his image having a very small face, a fat body and legs of normal size. Then he concluded that the special mirror was a combination of different types of mirrors with its top, middle and bottom parts made of: **[1]**

a) Convex, plane and concave mirrors respectively

b) Plane, convex and concave mirrors respectively

c) Convex, concave and plane mirrors respectively

d) Concave, convex and plane mirrors respectively

14. State whether the given statement is True or False: **[1]**

Sal, teak, jamun etc. are the fauna of Pachmarhi Biosphere Reserve.

15. State whether the given statement is True or False: **[1]**

Friction offered by powder sprinkled on a carrom board reduces friction.

Section B

16. Explain the formation of curd from the milk. **[2]**
17. The plant debris got buried under the soil and the pressure exerted by the upper layers converted the debris into? **[2]**
18. We can boil water in a paper cup while paper catches fire easily. Explain the process. **[2]**
19. Lila always eats only dal and rice in every meal. She often falls ill and has become prone to diseases. Can you suggest changes in her diet which can make her healthy and free from disease? **[2]**
20. How can we control noise? **[2]**
21. A tester is used to check the conduction of electricity through two liquids, labelled A and B. It is found that the bulb of the tester glows brightly for liquid A while it glows very dimly for liquid B, you would conclude that **[2]**

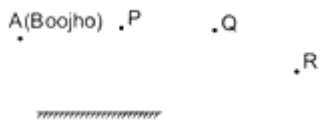
(i) liquid A is a better conductor than liquid B.

(ii) liquid B is a better conductor than liquid A.

(iii) both liquids are equally conducting.

(iv) conducting properties of liquid cannot be compared in this manner.

22. Boojho stands at A just on the side of a plane mirror as shown in figure. Can he see himself in the mirror? Also can he see the image of objects situated at P, Q and R? **[2]**



Section C

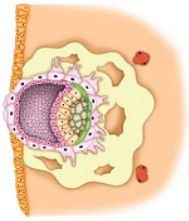
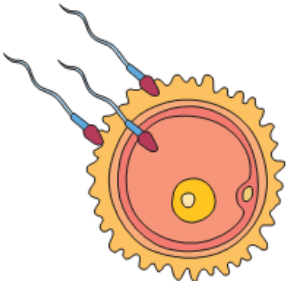
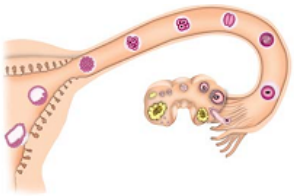
23. How was agriculture born? **[4]**
24. What are the four different use of the petroleum products? **[4]**
25. Although 2 cells called gametes fuse, the product formed is a single cell called a zygote. Justify. **[4]**
26. What are sex hormones? Why are they named so? State their function. **[4]**
27. Calculate the pressure produced by applying 56N force on a flat surface having a width of 160 cm and a length measuring 5m. **[4]**
28. What is difference between noise and music? **[4]**
29. Explain the ionisation of sodium chloride (table salt). **[4]**
30. A person is caught outside during a lightning storm and seeks shelter in a building. **[4]**

Why is it safer to seek shelter indoors during a lightning storm? Discuss the scientific reasons behind this safety measure and how buildings protect individuals from lightning strikes.

31. Differentiate between regular and diffused reflection. Does diffused reflection mean the failure of the laws of reflection? **[4]**

Section D

32. Observe the following figures. **[5]**

a.  b.  c.  d. 

i. Identify the stages a to d in Fig. during the development of the human baby.

ii. Arrange the stages in the correct sequence of development.

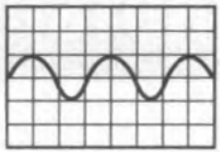
iii. Explain the development that takes place in any one stage.

33. Define pressure. Write its mathematical expression and SI unit. **[5]**

34. Briefly describe an activity to show that there may be a change of colour in the solution during a chemical reaction. **[5]**

Solution

Section A

1. **(a)** rainy season
   Explanation:
   rainy season
2. **(a)** fungi
   Explanation:
   Potato blight is caused due to fungi. In this disease foliage of potato plants develops black spot all over the plants to reduce photosynthesis.
3. **(a)** Coal
   Explanation:
   Coal
4. **(d)** Keeping the the gas exhaust temperature very high.
   Explanation:
   Keeping the the gas exhaust temperature very high.
5. **(a)** Only C
   Explanation:
   Dinosaur
6. **(b)** Both antherozoid and sperm
   Explanation:
   Both antherozoid and sperm
7. **(a)** Virus
   Explanation:
   Virus
8. **(c)** II, III and IV only
   Explanation:
   II, III and IV only
9. **(a)** all of these
   Explanation:
   all of these
10. **(a)** 
    Explanation:
    The graphs given in option A and C have higher frequency to that in B and D. The amplitude of C is lesser than that of A hence it is softer than A.
11. **(c)** in solid NaCl, ions cannot move freely
    Explanation:

in solid NaCl, ions cannot move freely

12.

(d) earthquake under sea
Explanation:
earthquake under sea

13.

(c) Convex, concave and plane mirrors respectively
Explanation:
Convex, concave and plane mirrors respectively

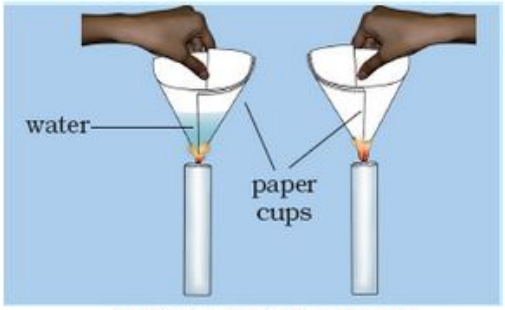
14.

(b) False
Explanation:
False

15. **(a)** True
Explanation:
True

Section B

16. Curds are a dairy product produced by bacterial fermentation of milk. Bacteria that is used for this purpose is Lactobacillus delbrueckii . This is a kind of bacteria which can convert a sugar into an acid by means of fermentation. Milk contains a sugar called lactose, when milk is heated to a temperature of 30-40 °C and a small amount of old curd added to it, the lactobacillus in that curd sample starts to grow and convert the lactose into lactic acid, which imparts the sour taste to curd.
17. Peat
18. We take two paper cups. Take some water in one cup and keep the other empty. Heat both the cups. Empty cup starts to burn but the cup containing water does not burn. If we continue heating the water in the cup it starts boiling. The heat supplied to the paper cup is transferred to water by conduction. So in the presence of water the ignition temperature of paper is not reached. Hence, it does not burn.

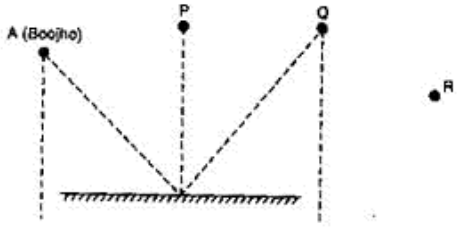


Heating water in a paper cup

19. Lila's diet is not a balanced diet because her meal does not contain an adequate nutritional requirement. She takes only proteins and carbohydrates in every meal. She also requires vitamins and minerals in her meal to protect her from various diseases. Thus, I would suggest her to include fruits and vegetables in her meal, to obtain vitamins and minerals and complete her diet.
20. **Measures to control noise pollution**
    1) We should not play radio ,stereo systems and televisions too loudly.
    2) The horns of motor vehicles should not be gone unnecessarily.
    3) The bursting of crackers should be avoided.
    4) The noise making factory and airports should be shifted away from the residential area of the city.
    5)loud speakers should be played at low volume during marriages and other social function.
    6) Trees should be planted along the roads and around building to reduce the noise pollution from the roads.
21. Liquid A is a better conductor than liquid B.
    The conductivity of the solution determines the amount of current flowing through the solution. Greater the conductivity, greater

will be the quantity current passing through the solution and lesser the conductivity, the quantity of current passing through will be correspondingly less. So, the conductivity of liquid A is more than the conductivity of liquid B.

22. No, he can see image of object at P but not of Q and R.



Section C

23. Till 10,000 B.C. people were nomadic. They were wandering in groups from place to place in search of food and shelter. They ate raw fruits and vegetables and started hunting for animals for food. Later, they could cultivate land and produce rice, wheat and other food crops and they become producers.Thus, was born 'Agriculture'. Today 70% of the indian population is engaged in food production.
24. The different uses of petroleum products are :
    (a) Petrol is used as motor fuel, aviation fuel and solvent for dry cleaning.
    (b) Kerosene is used as fuel for stoves, lamps and jet aircrafts.
    (c) Diesel is used as fuel for heavy motor vehicles, electric generators etc.
    (d) Paraffin wax is used as ointment, candles and vaseline.
    (e) Kerosene used for stores, lamps and for jet crafts.
    (f) Lubricating Oil used for Lubrication for different parts of engine.
    (g) Bitumen used fin Paints and Roads surfacing.
25. In the process of fusion of gametes during fertilization, there is mainly the fusion of nuclei of the male and the female gametes, i.e. the sperm and the ovum respectively. When a sperm reaches near the ovum, it comes in contact with it and releases its nucleus into the egg cell. There is fusion, thus of the nuclei of sperm and egg cells, inside the egg cell. The rest of the sperm body degenerates. And hence, the product formed is a single cell called a zygote.
26. The hormones are secrete from testes and ovaries are called sex hormones.
    The male hormone or testosterone begins to be released by the testes, and the female hormone or estrogen to be released by the ovarie.
    Function of Male Sex Hormones.
    The male hormone begin changes in boys like facial hair, that is monstaches and bread. Boys also develop hair on their chest and under the arms the female hormone or estrogen which makes the breasts develop. Milk secreating glands or mammary glands develop inside the breasts. Girls also develop hair under the arms.
27. Area of the surface = 160 cm $\times$ 5 m (160 cm = 1.6 m) = 1.6 m $\times$ 5 m = 8 m^2, Force = 56N (given) Pressure = $\frac{Force}{Area\ Pressure} = \frac{56N}{8m^2}$ = 7N/m^2 or 7Pa
28. Excessive or unwanted sounds are called noise. Noise is unpleasant to hear. E.g., Sound produced by a bunch of students speaking together in the classroom.
    The sounds which are pleasing to the ears are called music. It gives a soothing effect rather than creating a chaos in mind. E.g., Sound produced by a harmonium sound.
29. When table salt (NaCl) dissolves in water, its molecules break into sodium ions (Na^+) and chloride ions (Cl^-). The sodium ions carry a positive electric charge and the chloride ions carry a negative electric charge.
30. Seeking shelter indoors during a lightning storm is safer because buildings provide protection from lightning strikes. The structure of buildings acts as a pathway for lightning to travel safely to the ground, minimizing the risk of injury or damage to individuals inside. Additionally, buildings are equipped with grounding systems and materials that help dissipate the electrical charge from lightning strikes, further enhancing safety indoors during a thunderstorm.
31.

Regular reflection	Diffused reflection
1) Occurs from shiny and smooth surfaces.	1) Occurs from unpolished and rough surfaces.
2) Reflected rays are parallel to each other.	2) Reflected rays are not parallel to each other.
3) Clear images are formed .	3) Blurred images are formed .

    The laws of reflection are followed in every situation. Hence, diffused reflection does not mean the failure of the laws of reflection.

Section D

32. i. The stages are as follows:

a. Embedding of the embryo in the uterus of the mother, i.e. implantation.
b. Fusion of male and female gametes, i.e. fertilization.
c. Formation of the zygote and its development into an embryo as it travels from oviducts to the uterus.
d. Fusion of nuclei during fertilization, in a zygote.

ii. The correct sequence of these stages would be :

i. b. Fusion of male and female gametes, i.e. fertilization.
ii. d. Fusion of nuclei of two gametes in a zygote.
iii. c. Development of a zygote to an embryo as it travels down the oviducts to reach the uterus.
iv. a. Embedding of the embryo in uterine walls of the mother, i.e. implantation.

Thus, the correct sequence would be b, d, c, a.

iii. During fertilization, the male gamete sperm reaches up to the female gamete, ovum, or egg cell. One of the sperms that reach the ovum, releases its nuclei into the egg cell. Then, inside the egg cell, or the zygote, takes place the fusion of the nucleus of that sperm with the nucleus of the female gamete. Thus, the product of fertilization, the zygote is formed. The rest of the sperm degenerates.

33. Pressure is produced when a force acts on an object. It is defined as the force acting normally on a unit area of an object.
The mathematical expression for force is:

$$Pressure = \frac{Force}{Area}$$

The SI unit of pressure is newton per square metre which is also called pascals(Pa).

34. There may be a change of colour in the solution during a chemical reaction.
Cut a potato into two halves and insert the copper wires of a tester into it. After half an hour, there is a greenish blue spot on the potato around one wire whereas there was no such spot around the other wire. It is observed that always the wire connected to the positive terminal, develops a greenish blue spot around it. This can be used to identify the positive terminal of the battery concealed in a box. This shows that the fresh fruits and vegetables conduct electricity to some extent due to the presence of various salt solutions in them.