Class VIII Session 2025-26
Subject - Science
Sample Question Paper - 7

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. Formation of vermicompost manure involves addition of: **[1]**

   a) mycorrhiza
   b) bacteria
   c) Redworms
   d) leeches

2. Viruses are parasites because **[1]**

   a) They cannot use the energy of sunlight.
   b) They are unimaginably small.
   c) All their life processes are carried out by using the host's cell machinery.
   d) They do not contain chlorophyll.

3. Which of the following is known as chief antiknock agent for automotive gasoline? **[1]**

   a) Tetraethylene lead
   b) Tetraethyl lead
   c) Tetramethyl lead
   d) Tetrapropyl lead

4. During combustion temperature rises considerably because burning: **[1]**

   a) uses oxygen
   b) rapidly
   c) not uses air
   d) produces light

5. A habitat change may: **[1]**

   a) cause destruction of the new habitat
   b) decrease the number of a given species
   c) increase the number of a given species
   d) create many endemic species

6. The gender of an infant is determined by- **[1]**

   a) By chromosome of female
   b) By chromosome of male
   c) By chromosome of both
   d) By chromosome of ancestor

7. If fertilization doesn't occur, the ovum is released out from **[1]**

a) menstrual cycle
b) None of these
c) urine
d) sweat

8. What happens, when a body undergoes an acceleration? **[1]**

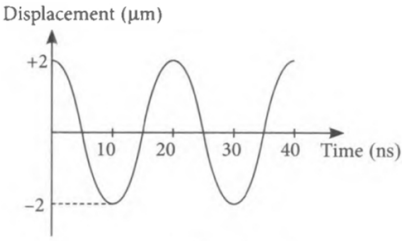
I. Its velocity always increases
II. Its acceleration always increases
III. A force always acts on it
IV. Both I and III

a) Only III
b) Only II
c) Only IV
d) Only I

9. The force required to keep the object moving with same speed is a measure of **[1]**

a) Rolling friction
b) Sliding friction
c) Contact friction
d) Static friction

10. The following figure shows the displacement of a particle within 40 ns. What will be the displacement of the particle when f = 70 ns? **[1]**



a) 0 μm
b) 2 μm
c) -2 μm
d) 1 μm

11. Our houses have an electricity meter, so that the cost of the electricity used by the household equipment can be calculated. What does the electricity meter record? **[1]**

a) Charge
b) Power
c) Energy
d) Current

12. An earthquake of magnitude 6 on Richter scale is how many times more destructive than an earthquake of magnitude 4? **[1]**

a) 1500
b) 100
c) 1000
d) 2000

13. When white light is passed into a prism it spilts into **[1]**

a) seven colours
b) eight colours
c) five colours
d) three colours

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

Endemic species are those species of plants and animals which are found exclusively in a particular area.

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

Friction is lesser when two surfaces are pressed lightly.

Section B

16. How do microorganisms survive under adverse conditions? **[2]**
17. What is a fuel? What are its types? **[2]**
18. Why is natural gas considered the best fuel for transportation? **[2]**
19. Prepare a Table having two columns depicting names of endocrine glands and hormones secreted by them. **[2]**
20. Prove that sound needs a medium for propagation. **[2]**
21. Is it safe for the electrician to carry out electrical repairs outdoors during heavy downpour? Explain. **[2]**
22. What happens to light when it gets dispersed? Give an example. **[2]**

Section C

23. What are weeds? How can we control them? **[4]**
24. Why are the fossil fuels exhaustible natural resources? **[4]**
25. What are the functions of reproduction? **[4]**
26. Write a short note on AIDS. **[4]**
27. Show that a liquid exerts pressure on the walls of the container. **[4]**
28. a. What is one vibration in a second called as? **[4]**
    b. What is oscillation? A vibrating object produces 156 waves in four second. Calculate the frequency of the vibrating object.
29. What is EPNS? Where can it be seen? What is the purpose of such techniques? **[4]**
30. Describe with the help of a diagram an instrument which can be used to detect a charged body. **[4]**
31. a. How does the pressure of a liquid depend on its depth? **[4]**
    b. Explain why, the walls of a dam are thicker near the bottom than at the top?

Section D

32. Explain briefly the male reproductive system? **[5]**
33. Describe mirror periscope with diagram. **[5]**
34. What is electrolysis? What are the signs of electrolysis? **[5]**

Solution

Section A

1. **(c)** Redworms
   Explanation:
   The process of rottening and conversion of kitchen and animal waste into manure by adding redworms is called vermicomposting. Red worms are added to the waste, to enhance composting process.

2. **(c)** All their life processes are carried out by using the host's cell machinery.
   Explanation:
   All their life processes are carried out by using the host's cell machinery.

3. **(b)** Tetraethyl lead
   Explanation:
   Tetraethyl lead

4. **(d)** produces light
   Explanation:
   During combustion temperature rises considerably because burning produces heat and light due to the breaking of carbon bonds in them.

5. **(b)** decrease the number of a given species
   Explanation:
   A habitat is an ecological or environmental area that is inhabited by a particular species. changes in habitats brought on by alterations in farming practices, tourism, pollution, ...etc decreases the number of a given species.

6. **(b)** By chromosome of male
   Explanation:
   A child's gender (male or female) is determined by the chromosome that the male parent contributes. Females have XX sex chromosomes. Males have XY sex chromosomes. A male infant result if the male contributes his Y chromosome while a female infant results if he contributes his X chromosome.

7. **(a)** menstrual cycle
   Explanation:
   menstrual cycle

8. **(a)** Only III
   Explanation:
   Only III

9. **(b)** Sliding friction
   Explanation:

When an object moves on a surface, resistance is offered and moving object slows down. To keep object moving with same speed a constant force is required which is the measure of sliding friction.

10. **(c)** -2 μm
Explanation:
As the amplitude changes from +2 μm to -2 μm in every 10 seconds. So, displacement of the particle when t = 70 ns will be -2 μm.

11. **(c)** Energy
Explanation:
Energy

12. **(c)** 1000
Explanation:
Richter scale is a logarithmic scale (non liner scale).

13. **(d)** three colours
Explanation:
three colours

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

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

Section B

16. Under unfavourable conditions of temperature and water, the microorganisms generally form a hard and tough covering called cyst. This protects them. After favourable conditions return, they emerge from their shell, multiply and go through their life cycles.
17. A fuel is defined as a substance that is burnt to provide heat and other forms of energy. Fuels can be in the solid, liquid or gaseous states. Solid fuels include wood, charcoal, coal and coke, while liquid fuels include petrol, diesel and kerosene. Gaseous fuels include Compressed Natural Gas (CNG) and Liquefied Petroleum Gas (LPG), biogas and hydrogen gas.
18. It is considered the best fuel for transportation because it can be directly supplied from the gas well to the factories or homes through underground pipelines.
19.

Endocrine gland	Hormones
Testis	Testosterone
Overay	Oestrogen
Thyroid	Thyroxin
Adrenal	Adrenalin
Pancreas	Insulin
Pituitary	Growth hormone

20. Take a metal glass tumbler. Place a cellphone in it. Ask your friend to give ring on 1 cellphone. Listen to the ring carefully. Now surround the rim of the tumbler with your hands. Put your mouth on opening between your hands. Indicate to your friend to give a ring again. Listen the ring while sucking air from the tumbler. The sound become very less. This activity shows that sound requires a medium to propagate.

Sound needs a medium to travel.

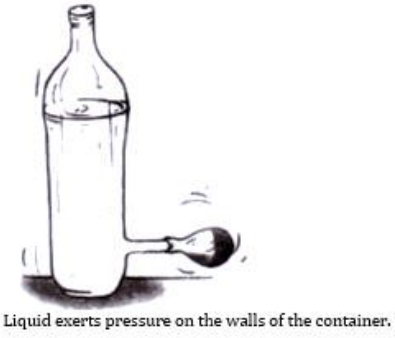
21. No. It is not safe to repair electrical appliances outdoors during heavy downpour.
    This is because rain water contains dissolved salts. Therefore, rain water can conduct electricity. The electrician may get electrical shocks while working outdoors during rain.
22. Light is splitted into its constituent colours when it gets dispersed, e.g. Rainbow formation is due to the dispersion of white light after passing through water droplets.

Section C

23. In a field other undesirable plants may grow naturally along with the crop. These undesirable plants are called weeds. We can adopt many ways to remove weeds and control their growth. Tilling before sowing of crops helps in uprooting and killing of weeds, which may then dry up and get mixed with the soil. The best time for the removal of weeds is before the produce flowers and seeds. The manual removal includes physical removal of weeds by uprooting or cutting them close to the ground, from time to time. This is done with the help of a khurpi or a harrow.
    Weeds are also controlled by using certain chemical, called weedicides like 2.4, D. These are sprayed in the fields to kill the weeds. They do not damage the crops. The weedicides are diluted with water to the extent required and sprayed in the fields with a sprayer.

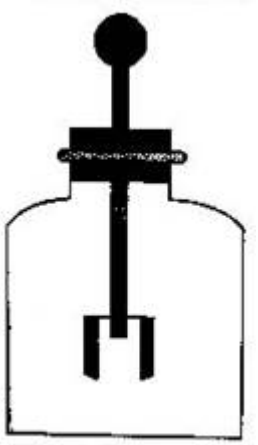
Spraying weedicide

24. Although fossil fuels are continually being formed via natural processes, they are generally considered to be exhaustible natural resources because they take millions of years to form and the know viable reserves are being depleted much faster than new ones are being made.
25. The functions of reproduction are as follows:-
    - Replaces the individuals dying due to senescence or ageing.
    - Individuals removed from population due to predation or disease are replaced through reproduction.
    - Introduces variations essential for adaptability and struggle for existence.
26. AIDS is caused by a dangerous virus, HIV. This virus can pass on to a normal person from an infected person by sharing the syringes used for injecting drugs. It can also be transmitted to an infant from the infected mother through her milk. The virus can be transmitted through sexual contact with a person infected with HIV.
27. Take a plastic bottle. Fix a small glass tube above the bottom of the plastic bottle. We should seal the joint of glass tube with plastic bottle by using molten wax so that water does not leak from the joint. Tie a thin sheet of rubber tightly on the open end of glass tube. Now fill half of plastic bottle with water. On filling water, the rubber sheet tied to the mouth of glass tube gets stretched and bulges out. The bulging out of rubber sheet tied to the glass tube fixed in the wall of plastic bottle demonstrates that water present in plastic bottle exerts pressure on the walls of the bottle. It is the sideways pressure exerted by water which inflates the thin rubber sheet forming a buldge. If we pour more water in the plastic bottle to increase depth, we will see that the bulge in the rubber sheet increases. This indicates that the pressure exerted by water increases with increasing depth.
    i. The pressure exerted by a liquid on the walls of container increases with increasing depth.
    ii. A liquid exerts pressure on the walls of its container.

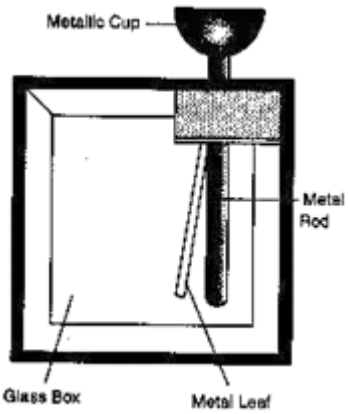


Liquid exerts pressure on the walls of the container.

28. a. One vibration in a second is called as Hertz.
    b. To and fro motion of a vibrating object is called oscillation.
    Frequency $= \frac{156}{4} = 39Hz$
29. Silver-plated items may have EPNS stamped on them. EPNS stands for 'electroplated nickel silver'. Cutlery and jewellery items are often silver-plated. They have the appearance of silver but are much less expensive. Similarly, gold is coated on silver jewellery. It is done by the technique called electroplating. The purpose is to make things look atrractive.
30. **Electroscope:** Electroscope is a device used to detect the presence of charge on an object.
    Principle: It works on the principle that like charges repel while unlike charges attract each other.
    Structure and Working :
    An electroscope has a metal rod with thin metal strip or leaf attached to it at the bottom. At the top, the rod enters in a cup. The bottom part of the rod and leaf are enclosed in a glass box for protection. When the knob of the electroscope is touched with a charged ebonite or glass rod, the leaves open out or diverge. Extent of divergence depends upon the amount of charge on the electroscope.



A Gold Leaf Electroscope

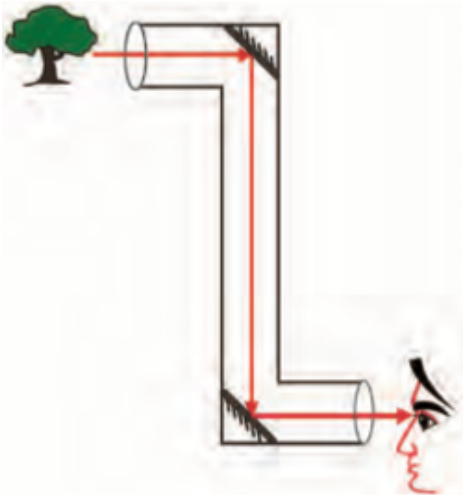


31. a. The pressure of the liquids is not same at all depths. It changes with the depth.
    The pressure exerted by a liquid increases with increasing depth inside the liquid. As the depth increases, the weight of liquid column pushing down from above increases and hence the pressure increases too.
    b. The walls of a dam are thicker at the bottom because the pressure exerted at the bottom is more than the top, so to bear the pressure and the weight of the liquid, the walls are made thicker.

Section D

32. The male reproductive system consists of the organs for the formation of gametes or basically referred to as sperms and organs for the transport of sperms to the female body.
    The male reproductive organs include the following:-
    - A pair of testes.
    - Two sperm ducts.
    - And penis.

    Testes produce the male gametes called as sperms.
    Millions of sperms are produced by testes.
    Though sperms are small in size but each has a head, a middle piece, and a tail.
33. **Mirror Periscope:** The working of a periscope is based on the principle of successive reflections from two plane mirrors. It consists of two plane mirrors facing each other fixed at 45 degree angle to the frame work of a tube. Fix the two mirrors at an angle of 45 degree as shown in the figure. View object through one end.



34. When electric current is passed through a conducting solution, some chemical reaction takes place in the solution. This is called chemical effect of electric current, or electrolysis. Some of the signs of electrolysis are as follows:
    - Bubbles of gas may be formed at electrodes.
    - Deposits of metal may be seen on electrodes.
    - Change of colour of solution may occur.