

**Class VIII Session 2025-26**  
**Subject - Science**  
**Sample Question Paper - 5**

**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. The big pieces of soil in the ploughed field are called [1]
  - a) flakes
  - b) all of these
  - c) crumbs
  - d) lumps
2. Nitrogen cycle includes [1]
  - a) nitrogen fixation
  - b) denitrification
  - c) ammonification
  - d) all of these
3. Coal type that contains lowest amount of carbon is: [1]
  - a) lignite
  - b) anthracite
  - c) bituminous
  - d) lanthanide
4. Global warming leads to a rise in sea level which causes floods in the coastal areas. One of the main reasons of global warming is \_\_\_\_\_. [1]
  - a) Combustion of fuels releases unburned carbon particles which causes decrease in temperature.
  - b) Combustion of fuels releases  $\text{CO}_2$  which causes increase in temperature.
  - c) Combustion of fuels releases  $\text{CO}$  which decreases the temperature.
  - d) Combustion of fuels releases  $\text{SO}_2$  which increases the temperature.
5. Which one of the following changes may occur due to desertification? [1]
  - a) Increase in water holding capacity of soil.
  - b) Increased chances of floods.
  - c) Conversion of fertile land into a desert.
  - d) Decrease in atmospheric temperature.

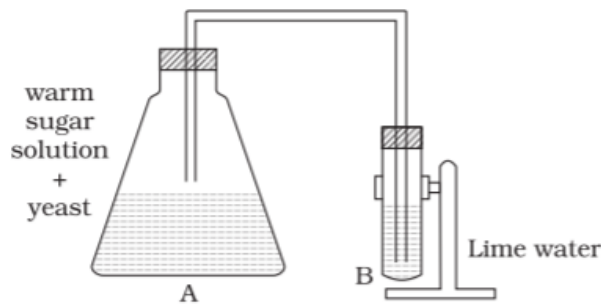
6. Which of the following test determines or finalizes fatherhood? [1]  
a) DNA b) Blood Grouping  
c) Tissue Culture d) Finger printing through genetic code
7. In the male human, sperm contains 22 pairs of autosomes and [1]  
a) A pair of Y-chromosome b) Three X-chromosome  
c) A pair X- chromosome d) One Y-chromosome
8. The speed of a falling body increases continuously. This is because [1]  
a) the air exerts a frictional force on it b) no force acts on it  
c) it is very light d) the earth attracts it
9. Frictional force is necessary in [1]  
a) Accelerating the car b) Using matchstick  
c) Playing carom d) Pushing heavy load
10. Which of the following health problem is not caused due to noise pollution? [1]  
a) Anxiety b) Lack of sleep  
c) Hypertension d) Diabetes
11. Which of the following is negatively charged? [1]  
a) Neutron b) Proton  
c) Electron d) Nucleus
12. A device used to test whether an object is carrying charge or not is called [1]  
a) Charge meter b) Electrometer  
c) Voltmeter d) Electroscope
13. Human eyes are always paired. What will happen if humans would have only one eye? [1]  
a) All of these b) All the objects will appear faint  
c) Humans will not be able to see objects d) the world would become two-dimensional beyond  $90^\circ$  for humans
14. State whether the given statement is True or False: [1]  
Gradually the fertile land gets converted into deserts due to afforestation.
15. State whether the given statement is True or False: [1]  
It is friction which help us to hold things.

#### Section B

16. Observe the set up given in figure and answer the following questions. [2]  
a. What happens to the sugar solution in A?  
b. Which gas is released in A?



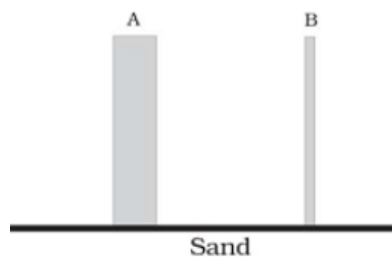
c. What changes will you observe in B when the released gas passes through it?



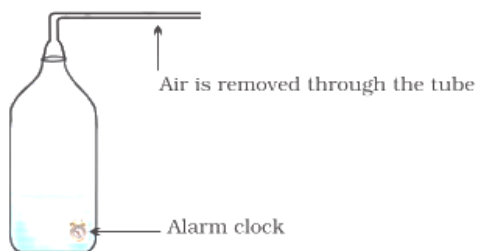
17. What advice is given by PCRA for saving petrol and diesel? [2]
18. Explain the structure of a flame. [2]
19. Name the female hormone produced by ovaries that helps in the development of mammary glands. [2]
20. How is sound produced? [2]
21. Make a list of materials around you which conduct electricity and a list of those that do not. [2]
22. The angle between incident ray and reflected ray is  $60^\circ$ . What is the value of angle of incidence? [2]

### Section C

23. Which seeds are grown in a nursery? Explain the process. [4]
24. Identify the substances/fuels: [4]
  1. It is a black or brown viscous liquid mixture of nearly 200 different substances.
  2. It is mainly used to make steel.
  3. It is used to make candles, and Vaseline.
25. What are Sexually Transmitted Diseases? How can they be prevented? [4]
26. What is the cause of the changes in human body during puberty? [4]
27. Two rods of the same weight and equal length have different thicknesses. They are held vertically on the surface of sand as shown in Fig. Which one of them will sink more? Why? [4]

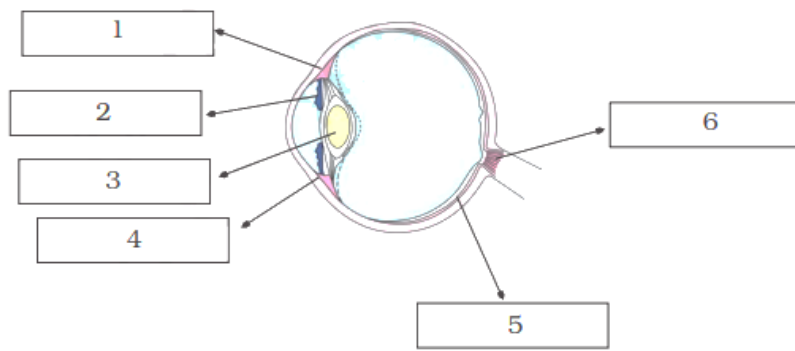


28. An alarm bell is kept inside a vessel as shown in Fig. A person standing close to it can distinctly hear the sound of the alarm. Now if the air inside the vessel is removed completely how will the loudness of alarm get affected for the same person? [4]



29. What is deflation? How is it useful? [4]
30. In the event that an earthquake does strike what steps will you take to protect yourself? [4]
31. Write down the names of parts of the eye in the blank spaces shown in the figure. [4]





#### Section D

32. How is the reproduction in hydra different from that in amoeba? [5]
33. a. What is meant by contact force? Explain with the help of an example. [5]  
 b. What is meant by non contact force? Explain with the help of an example.
34. Name the following: [5]
- Negatively charged particles of an atom
  - An electrolyte that conducts electricity weakly
  - An electrolyte that is a good conductor of electricity
  - A liquid that conducts electricity



# Solution

## Section A

1.

**(c)** crumbs

**Explanation:**

crumbs

2.

**(d)** all of these

**Explanation:**

all of these

3.

**(a)** lignite

**Explanation:**

Carbon content in lignite coal is less than 50%, so, lignite coal is the inferior quality of coal. Anthracite coal is best quality of coal.

4.

**(b)** Combustion of fuels releases  $\text{CO}_2$  which causes increase in temperature.

**Explanation:**

Combustion of fuels releases  $\text{CO}_2$  which causes increase in temperature.

5.

**(c)** Conversion of fertile land into a desert.

**Explanation:**

Conversion of fertile land into a desert

6.

**(a)** DNA

**Explanation:**

Deoxyribonucleic acid, or DNA, is the genetic material you inherit from your mother and father. Paternity refers to fatherhood. A DNA paternity test uses DNA, usually taken from a cheek swab, to determine whether a man is the child's biological father.

7.

**(d)** One Y-chromosome

**Explanation:**

A human cell contains 22 pairs of autosomes and 2 pairs of sex chromosomes. The sex chromosomes are the X and the Y chromosomes and human females have two X chromosomes while the human males have one X and one Y chromosomes.

8.

**(d)** the earth attracts it

**Explanation:**

the earth attracts it

9.

**(b)** Using matchstick

**Explanation:**

Frictional force is necessary in using matchstick. When matchstick is strike with matchbox friction is caused due to which heat is generated. The phosphorous in matchstick catch fire.



10.

**(d) Diabetes**

**Explanation:**

Noise pollution may cause a number of health problem like hypertension, anxiety, and lack of sleep. Diabetes is a hormonal problem not caused due to noise pollution.

11.

**(c) Electron**

**Explanation:**

Electron

12.

**(d) Electroscope**

**Explanation:**

Electroscope is a device for detecting electric on an object. By using an electroscope, we can tell whether an object is electrically charged or not.

13.

**(d) the world would become two-dimensional for humans**

**Explanation:**

the world would become two-dimensional for humans

14.

**(b) False**

**Explanation:** False

15.

**(a) True**

**Explanation:** True

### Section B

16. a. Yeast causes fermentation converting sugar into alcohol and carbon dioxide.

b. Carbon dioxide

c. Lime water turns milky

17. The advise given by PCRA are as following:

(i) Drive at a constant and moderate speed as far as possible.

(ii) Switch off the engine at traffic lights or at a place where you have to wait.

(iii) Ensure correct tyre pressure.

(iv) Ensure regular maintenance of the vehicle.

If we follow the tips given by PCRA, then we can save more and more petrol or diesel In this way we can save money and energy of the nation.

18. A flame consist of three zones. These are Innermost zone, middle zone, outer zone. The three zones of a flame have different colours and different temperature.

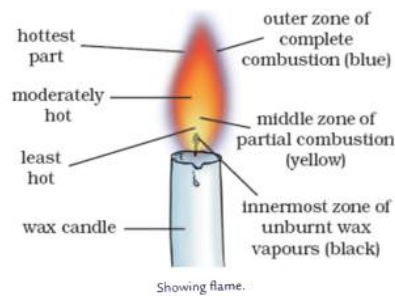
i. **The Innermost zone of a flame is dark or black :** It consists of hot, unburnt vapours of the combustible material. It is the least hot part of the flame. It is the coldest part of the flame.

ii. **The middle zone of a flame is yellow :** It is bright and luminous. The fuel vapours burn partially in the middle zone because there is not enough air of burning in this zone. The partial burning of fuel in the middle zone produces carbon particles. These carbon particles then leave the flame as smoke and soot. It has moderate temperature.

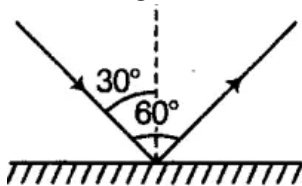
iii. **The outer zone of a flame is blue:** It is a non-luminous zone. In this zone, complete combustion of the fuel takes place because there is plenty of air around it. The outermost zone has the highest temperature in the flame. It is the hottest part of the



flame. It is quite thin as compared to middle zone.



19. Oestrogen Is the female hormone produced by ovaries that help in the development of breasts/mammary glands. It also produces female secondary sexual characteristics and causes the growth and development of female sex organs.
20. The vibrating bodies produce the sound. When a body vibrates, sound is produced. If vibrations are stopped the sound is not produced any more.
21. **Conductors** : Things formed of metals, e.g. copper, iron and aluminium, wet things and solutions of electrolytes in water.  
**Insulators** : Dry things made of wood, rubber and plastics.
22. Since the angle of incidence = angle of reflection. So, angle of incidence =  $30^\circ$



### Section C

23. For some crops such as paddy (rice), chilli and onion, the seeds are first sown in a separate plot called a nursery. When the seedlings are a few days old, they are planted manually in the field. Vegetables such as cabbage, cauliflower, tomato, brinjal and beetroot are grown in this manner.
24. 1. Coal tar  
2. Coke  
3. Paraffin wax
25. The diseases spread only by sexual contact are called sexually transmitted diseases (STDs). When a healthy person contacts sexually to a person which is infected, then the microorganisms are transmitted from infected person to the healthy person and that becomes infected. Syphilis, gonorrhoea, herpes and AIDS are some sexually transmitted diseases. Herpes and AIDS are not curable diseases. These are fatal diseases, which destroy the immune system of the patient. Sexual hygiene and safe sexual relationship are the only way to prevent sexually transmitted diseases.
26. The changes which occur during puberty are controlled by hormones. The hormones are the chemical substances. These are secretions from endocrine glands or endocrine system. These hormones are secreted from ovary, testes or pituitary gland at the time of puberty. The hormones secreted by pituitary stimulate testes and ovaries to secrete male and female hormones respectively.
27. Rod B will sink more because:
- As we know that the smaller the area, the larger the pressure on a surface for the same force applied.
  - Rod B has a smaller area.
  - Hence, it will exert more pressure on the sand.
  - On the other hand, rod A will exert less pressure on the sand as it has a larger area.
28. Initially, the person is able to hear the sound coming from air and water distinctly. But after some time, when the air is completely removed from the bottle, the sound will pass through the water and not reached to man. So, the man will not hear the sound which was coming through the air initially.
29. The process just opposite to electroplating is deplating. In this process, the object to be deplated is used as the anode (positively charged electrode) and the recovered metal is deposited on a cathode (negatively charged electrode) usually of the same metal. To recover gold and other valuable metals from the circuits of computers, mobiles, other electronic goods, the process of deplating is very useful.
30. In the event that an earthquake does strike, take the following steps to protect ourself.
- 1. If we are at Home**
- Take shelter under a table and stay there till shaking stops.

- b) Stay away from windows.
- c) Stay away from tall and heavy objects that may fall on you.
- d) If we are in bed, do not get up. Protect our head with a pillow.

**2. If we are Outdoors.**

- a) Find a clear spot, away from buildings, trees and overhead power lines. Drop to the ground.
- b) If we are in car or a bus, do not come out. Ask the driver to drive slowly to a clear spot. Do not come out till the tremors stop.

31. The names of the parts of the eye as shown in the figure are:

- 1. Ciliary muscle
- 2. Iris
- 3. Lens
- 4. Cornea
- 5. Retina
- 6. Optic nerve

**Section D**

32. Reproduction in hydra and amoeba is asexual, but the methods of reproduction are different. Hydra reproduces by the formation of buds on its body surface, which later develops into adult individuals. These buds appear as bulges from which the organism grows. This method of reproduction ensures the existence of parent hydra after reproduction.

In amoeba, reproduction takes place by binary fission. In this, there is a division of the nucleus of an amoeba into two equal halves, followed by the division of the body of an amoeba into two halves. In this, the parent amoeba loses its existence in the process of forming new ones. Hence, the mechanisms of reproduction in amoeba and hydra are different.

33. a. A force which can be exerted by an object on another object only through some contact is called a contact force. The examples of contact forces are: muscular force and frictional force.

Since muscular force is applied on an object with our muscles, hence it is a contact force. For example, a boy pulling a cart.

Frictional force is also applied between the two surfaces in contact with each other, for example, a car moving on the road is stopped by applying friction.

b. A force which can be exerted by an object on another object even from a distance without touching each other is called a non contact force.

Magnetic force and gravitational force are examples of non contact forces. A magnet can attract an iron object even at a distance, so it is a non contact force.

Gravitational force is also applied on all objects even at a distance, so it is a non contact force. For example, an apple falls from a tree comes to the earth in the downward direction.

34. i. electrons  
ii. acetic acid  
iii. hydrochloric acid  
iv. fresh lime solution

