

Class VIII Session 2025-26
Subject - Science
Sample Question Paper - 1

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. Soybean and cotton are [1]
 - a) Evergreen crops
 - b) Kharif crops
 - c) Rabi crops
 - d) Leguminous crops
2. **Statement:** Cooked food can spoil faster in summers than in winters. [1]
Reason: Days are longer in summers and shorter in winters.
 - a) The Reason is incorrect.
 - b) The Statement is correct but the Reason is incorrect.
 - c) The Statement is incorrect.
 - d) Both the Statement and the Reason are correct.
3. Which of the following is the common variety of coal? [1]
 - a) Bituminous
 - b) Lignite
 - c) Anthracite
 - d) Peat
4. A gaseous fuel _____. [1]
 - a) gives a high ash content on burning
 - b) cannot passed into pipelines
 - c) can be burnt at any moment
 - d) have low calorific value
5. Manas sanctuary is located at [1]
 - a) Assam
 - b) Rajasthan
 - c) Gujarat
 - d) Bihar
6. Binary fission is a form of [1]

- a) both sexual reproduction and asexual reproduction b) Prokaryotes
- c) sexual reproduction d) asexual reproduction
7. Which of the following is a hormone related disorders? [1]
- a) Diabetes b) Cholera
- c) Typhoid d) Diarrhoea
8. One atmospheric pressure is equal to [1]
- a) $2.5 \times 10^5 \text{ N/m}^2$ b) $1.1 \times 10^8 \text{ N/m}^2$
- c) $1.01 \times 10^5 \text{ N/m}^2$ d) $1.5 \times 10^6 \text{ N/m}^2$
9. The surface of the head of a match stick and sides of a match box are deliberately made rough to [1]
- a) decrease friction b) decrease amount of heat
- c) increase friction d) increase pressure
10. The intensity of sound wave gets reduced by 10% on passing through a slab. The total reduction in intensity on passing through three consecutive slabs is [1]
- a) 70% b) 30%
- c) 72.9% d) 27.1%
11. Electrolysis converts [1]
- a) There is no conversion of energy in it b) Electrical energy into chemical energy
- c) Heat energy is converted into chemical energy d) Chemical energy into electrical energy
12. A lightning rod is made up of which metal? [1]
- a) Platinum b) Nickel
- c) Copper d) Iron
13. A red rose and a white rose are placed in front of a source of light. The colour of the shadow will be [1]
- a) Different for both rose b) Same for both rose
- c) Black for red rose and white for white rose d) Red for red rose and white for white rose
14. State whether the given statement is True or False: [1]
There can be a wildlife sanctuary within a biosphere reserve.
15. State whether the given statement is True or False: [1]
It is friction which help us to hold things.

Section B

16. What is pasteurisation of milk? [2]
17. What is the difference between bituminous and sub-bituminous coal? [2]
18. Fires caused by diesel cannot be extinguished by spraying water. [2]
19. Mention any two features each that are seen in boys and girls each to distinguish them from each other at puberty. [2]
20. What is the difference between noise and music? Can music become noise sometimes? [2]

21. Stop-off material is often used during electroplating. Give reason. [2]
22. What kind of lens is there in our eyes? Where does it form the image of an object? [2]

Section C

23. How is irrigation related to the type of soil? Give reason. [4]
24. What is inexhaustible and exhaustible natural resources? [4]
25. Define asexual reproduction. Describe two methods of asexual reproduction in animals. [4]
26. What do you mean by health? What are the factors which help to keep a good health? [4]
27. What are non-contact forces? Explain different types of non-contact forces with examples. [4]
28. The town hall building is situated close to Boojho's house. There is a clock on the top of the town hall building which rings the bell every hour. Boojho has noticed that the sound of the clock appears to be much clearer at night. Explain. [4]
29. What is deplating? How is it useful? [4]
30. What is seismograph? Explain its construction and functioning. [4]
31. Define the following with diagram: [4]
- a. Angle of incidence
 - b. Angle of reflection.

Section D

32. Explain external fertilization in frogs? [5]
33. Explain systolic and diastolic pressure in detail. [5]
34. Manthan wants to electroplate his key chain with nickel to prevent rusting, for this electroplating, answer the following: [5]
- i. Name the electrolyte
 - ii. Name the cathode
 - iii. Give the reaction at the cathode
 - iv. Give the reaction at the anode.

Solution

Section A

1.
(b) Kharif crops
Explanation:
Soybean and cotton are kharif crops.
2.
(b) The Statement is correct but the Reason is incorrect.
Explanation:
The Statement is correct but the Reason is incorrect.
3. **(a)** Bituminous
Explanation:
Bituminous
4.
(c) can be burnt at any moment
Explanation:
can be burnt at any moment
5. **(a)** Assam
Explanation:
Assam
6.
(d) asexual reproduction
Explanation:
asexual reproduction
7. **(a)** Diabetes
Explanation:
Diabetes
8.
(c) $1.01 \times 10^5 \text{ N/m}^2$
Explanation:
 $1.01 \times 10^5 \text{ N/m}^2$
9.
(c) increase friction
Explanation:
increase friction
10.
(d) 27.1%
Explanation:
Intensity of sound after passage through three consecutive slabs
$$= I_0 \times \frac{90}{100} \times \frac{90}{100} \times \frac{90}{100} = 0.729 I_0$$

Loss of intensity = $I_0 - 0.729 I_0 = 0.271 I_0$

or $\frac{0.271 I_0}{I_0} \times 100 = 27.1\%$

11.

(b) Electrical energy into chemical energy

Explanation:

In electrolysis, electrical energy is converted into chemical energy.

12.

(c) Copper

Explanation:

Copper

13.

(b) Same for both rose

Explanation:

The colour of the shadow is always black in spite of different object. So, a red rose and white rose always form black colour of shadow.

14. **(a)** True

Explanation:

True

15. **(a)** True

Explanation: True

Section B

16. Pasteurised milk can be consumed without boiling as it is free from harmful microbes. The milk is heated to about 700°C for 15 to 30 seconds and then suddenly chilled and stored. By doing so the milk is prevented by the growth of microbes. This process was discovered by Louis Pasteur so it is called Pasteurisation.

17. Sub-bituminous coal has about 70% carbon content. It has a much higher heat value than lignite. Bituminous coal has carbon content of around 80% and has a higher heat value than sub-bituminous coal.

18. Fire caused by diesel cannot be extinguished by spraying water. If water is sprayed, diesel being lighter than water will float and spread and cause greater damage.

19. Two features seen in boys at puberty are:

- i. Growth of facial hairs (moustache and beard).
- ii. Voice becomes hoarse (Adam's apple seen as a bulge).

Two features seen in girls at puberty are:

- i. Development of breasts.
- ii. The region below the waist becomes wider (broader hips).

20. Music are sounds which are pleasant to hear. Sounds from flutes, pianos and violins are pleasant to hear.

Noise are sounds which are unpleasant to hear.

Sounds which are unpleasant to hear are:

- i. Sounds from bus horns and truck horns.
- ii. Electrical generator sounds.
- iii. Gun shot sounds.
- iv. Jackhammer sounds

Yes, sometimes when the music are played at high volumes, it becomes noise.

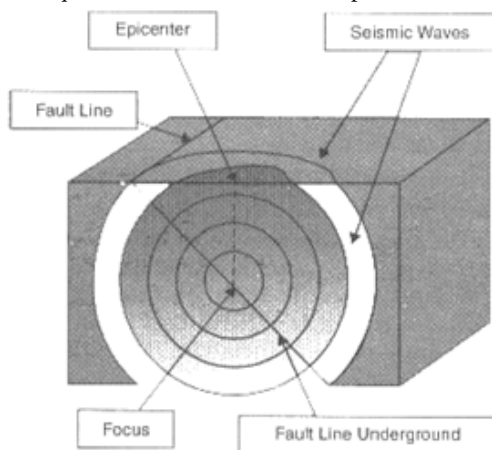
21. During electroplating, stop-off material is often used to prevent electroplating in a certain area.

22. Convex lens is present in our eyes, which focuses light on the back of the eye, on a layer called the retina. So, it forms the image of an object at the retina.

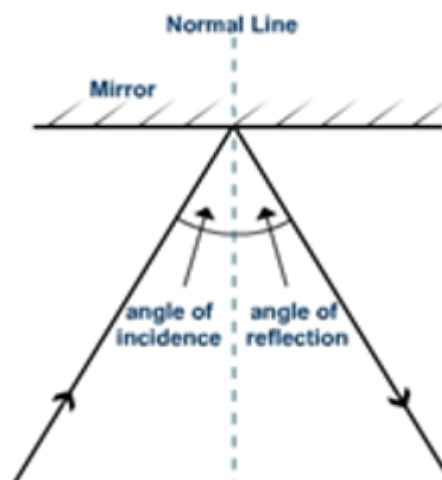
Section C

23. The amount of water required to irrigate a field also depends on the type of soil. Sandy soil holds less water. It also loses water quickly through evaporation. The water-holding capacity of sandy soil can be increased by mixing manure such as decomposed cattle dung and plant material. Soil containing humus and clay holds more water. It remains moist for a longer time.
24. An inexhaustible resource is a resource that never runs out or gets depleted. Some of such resources include wind, sun, solar energy etc.
The exhaustible natural resources are limited in nature and can be exhausted by different human activities such as coal and petroleum.
25. The type of reproduction in which only a single parent is involved is called asexual reproduction. Asexual reproduction may occur in many ways e.g.
Budding: This method is seen in multicellular animals which are highly simple in structure. A small bud develops on the body. The bud develops and starts resembling its mother. After that, the bud gets detached from the mother's body to begin life as a new individual. Examples: Hydra and sponges.
Binary Fission: This method is seen in unicellular animals, e.g. amoeba. The cell of amoeba divided into two daughter cells. Each daughter cell becomes a new individual.
26. The physical and mental well being of an individual is regarded as health.
The factors that help to keep a good health:
(i) One should take a balanced diet.
(ii) One should care and keep personal hygiene.
(iii) Walking and playing in fresh air keeps the body fit and healthy.
(iv) All young boys and girls should take walks, exercise and play outdoor games to keep human good health.
(v) Avoid the alcohol and tobacco.
(vi) Drink clean water, breathe in clean air and eat clean food.
27. The forces which can be exerted from a distance, without establishing a contact non-contact forces. Some non-contact forces are:
(i) Magnetic force: The force exerted by a magnet on other magnet or some magnetic substance like iron is called magnetic force. Like poles of a each other and unlike poles of a magnet attract each other without contact. called non-contact force.
(ii) Electrostatic force: The force exerted by a charged body on other char* uncharged body is called electrostatic force. Electrostatic force also acts making a direct contact with other charged or uncharged body. So it is also a non-contact force.
(iii) Force of gravity: Earth pulls every thing or body towards it. The force of attraction exerted by earth on any object is called force of gravity. This is also a non-contact force as it acts from a distance.
28. We know that speed, pitch, loudness all are initiated with a vibration. During the day, there is a number of vibrations around us. So, the sound coming from the clock gets disturbed and the amplitude of vibrations becomes small. But during the night, there are not such multiple vibrations in the environment. So, the sound is more clear. Further, "the dew factor at night increases the speed of sound as moisture level increases."
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. The tremors produce waves on the surface of the earth. These are called seismic waves. The waves are recorded by an instrument called the seismograph. The instrument is simply a vibrating rod, or a pendulum, which starts vibrating when tremors occur. A pen is attached to the vibrating system. The pen records the seismic waves on a paper which moves under it. By studying these waves, scientists can construct a complete map of the earthquake, as shown in fig. They can also estimate the energy associated with the

earthquake, which determines its power to cause destruction.



31. a. **Angle of incidence:** The angle between normal and incidence ray is called angle of incidence. Angle of incidence is always equal to angle of reflection.
 b. **Angle of reflection:** The angle between normal and reflected rays is called angle of reflection.



Section D

32. During spring or rainy seasons frogs and toads move to ponds and slow moving streams.
 When the male and female come together in water the female lays hundreds of eggs. On which the male releases its sperms.
 In frogs a layer of jelly holds the eggs together and provides protection to the eggs.
 This type of fusion in which male and female gamete fertilization takes place outside the female body is referred to as external fertilization.
33. Your blood pressure is at its highest when the heart pumps out blood. This is called systolic pressure. The normal systolic pressure of an adult human is 120 mmHg. When the heart is at rest, between beats, your blood pressure falls. This is diastolic pressure. Thus, diastolic pressure is the blood pressure between two heartbeats. The normal diastolic pressure of an adult human is 80 mmHg. Blood pressure is measured in a resting condition. The blood-pressure readings are noted as systolic pressure over diastolic pressure. The blood pressure is often noted without its units (mmHg). For example, the blood pressure of a 10-month-old child noted as 90/60 would mean the systolic pressure of the child is 90 mmHg and the diastolic pressure is 60 mmHg.
34. i. Nickel Sulphate is the electrolyte
 ii. Key chain is the cathode.
 iii. Reaction at the cathode:

$$\text{Ni}^{2+} + 2\text{e}^- \rightarrow \text{Ni}$$

 iv. Reaction on anode:

$$\text{Ni} - 2\text{e}^- \rightarrow \text{Ni}^{2+}$$