CBSE Sample Question Paper Term 1

Class – VIII (Session : 2021 - 22)

SUBJECT - SCIENCE - 086 - TEST - 01

Class 08 - Science

Time Allowed: 1 hour and 30 minutes **Maximum Marks: 70**

General Instructions:

Attempt all the questions.

1. Which of the following is/are sprayed in the fields to kill weeds but do not damage the crops? **[1]**

   a) Both MCPA and 2.4-D
   b) NPK
   c) MCPA
   d) 2.4-D

2. A modern method of the irrigation system in which there is no run-off or wastage of water at all? **[1]**

   a) Moat method
   b) Sprinkler system
   c) Chain pump system
   d) Drip system

3. What is a Scare-Crow and why it is used ? **[1]**
4. What do you mean by the tilling or ploughing? **[1]**
5. What are weeds? How can we control them? **[3]**
6. Who will not be able to consume solid food? **[1]**

   a) Euglena
   b) Paramecium
   c) Rhizobium
   d) Amoeba

7. A person suffering from _____ should always cover his mouth and nose with a handkerchief while sneezing. **[1]**

   a) Typhoid
   b) Malaria
   c) Common cold
   d) Cholera

8. What is the main ingredient of rava delis and bhaturas? **[1]**
9. Mention two groups of microorganisms which live in colonies. **[1]**
10. Write three uses of Algae. **[3]**
11. _____ of plastics releases foul smell and toxic gases : **[1]**

    a) biodegradation
    b) bioremediation
    c) incineration
    d) Recycling

12. Bakelite do not melt on heating because such : **[1]**

    a) polymers are attached by strong linear chains
    b) polymers are joined by strong cross links
    c) polymers are poor conductors of
    d) polymers are strong and inexpensive

heat

13. Give two examples of thermoplastics. **[1]**

14. Name a polyester which is commonly used. **[1]**

15. Explain thermoplastics and thermosetting plastics with examples. **[3]**

16. Read the following statements : **[1]**

i) Non metals are good conductors of electricity.

ii) Graphite is a non metal and good conductor of electricity.

a) both are correct

b) statement ii) is correct but i) is wrong

c) statement i) is correct but ii) is wrong

d) both are wrong

17. Read the following statements : **[1]**

i) Nitrogen is an inactive liquid non metal.

ii) Fluorine is an extremely reactive gaseous non metal.

a) statement i) is correct but ii) is wrong

b) statement ii) is correct but i) is wrong

c) both are correct

d) both are wrong

18. Why is aluminium nowadays replacing copper for use in electrical cables? **[1]**

19. Name some metalloids. **[1]**

20. Explain displacement reaction with the help of an activity. **[3]**

21. Read the following statements: **[1]**

i. Kerosene is used as an illuminant.

ii. Carbon black is used for production of petroleum gas.

a) both are wrong

b) statement ii) is correct but i) is wrong

c) both are correct

d) statement i) is correct but ii) is wrong

22. Natural gas is formed by decomposition of vegetation by : **[1]**

a) high pressure

b) anaerobic bacteria

c) aerobic bacteria

d) high temperature

23. What is meant by carbonisation? **[1]**

24. Can we use all our natural resources forever? **[1]**

25. Why are fossil fuels consider as non-renewable sources of energy. Why? **[3]**

26. Fuels are present in: **[1]**

a) liquid state

b) solid state

c) gaseous state

d) all three states

27. Read the following statements: **[1]**

i. Carbon dioxide is inflammable gas.

ii. Carbon dioxide is heavier than oxygen.

a) statement i) is correct but ii) is wrong

b) statement ii) is correct but i) is wrong

c) both are wrong

d) both are correct

28. Charcoal does not burn with flame but glows only. **[1]**

29. What are the different zones of flame? **[1]**

30. Why is it advisable to roll a person in a blanket if his/her clothes catch fire? **[3]**

31. Perpendicular force acting per unit area is called is called **[1]**

a) Energy

b) Thrust

c) Work

d) Power

32. When we press the bulb of a dropper with its nozzle kept in water, air in the dropper is seen to escape in the form of bubbles. Once we release the pressure on the bulb, water gets filled in the dropper. The rise of water in the dropper is due to - **[1]**

a) gravity of the earth

b) pressure of water

c) shape of rubber bulb

d) atmospheric pressure

33. A blacksmith hammers a hot piece of iron while making a tool. How does the force due to hammering affect the piece of iron. **[1]**

34. How do we feel force in our daily life? **[1]**

35. What are non-contact forces? Explain different types of non-contact forces. **[3]**

36. Rolling friction and sliding friction are two types of **[1]**

a) Static friction

b) Directional friction

c) Dynamic or kinetic friction

d) Fluid friction

37. To walk on slippery ground is difficult because the **[1]**

a) Ground offer very high resistance to walk

b) Habit of walking on slippery ground is not enough to us

c) Frictional force is not enough to prevent slip

d) Frictional force is very high to walk

38. What happens, if the floor we walk on is frictionless? **[1]**

39. Name the special shape given to objects moving in fluid. **[1]**

40. Cartilage is present in the joints of our body, which helps in their smooth movement. With advancing age, this cartilage wears off. How would this affect the movement of joints? **[3]**

41. Ultrasound has frequency of vibration **[1]**

a) below 20 Hz

b) between 500 and 10,000 Hz

c) between 20 and 20,000 Hz

d) above 20,000 Hz

42. Which of the following is not a bone present in human ear? **[1]**

a) Stirrup

b) Hammer

c) Anvil

d) Femur

43. What do you understand by stringed instruments? **[1]**

44. What type of voice is produced when the vocal cards are tight and thin? **[1]**

45. How do bats catch their prey? **[3]**

46. Anaerobic bacteria is used for **[1]**

a) Fragmentation b) Regeneration

c) Fermentation d) Respiration

47. Gaseous pollutant like Sulpher dioxide and nitrogen oxide is mainly released from **[1]**

a) Service sector b) Cotton industry

c) Paper industry d) Petroleum refinery

48. Combustion of fossil fuels generates a lot of air pollution. Can you suggest any two alternative sources of energy which do not cause any pollution. **[1]**

49. What is smog? **[1]**

50. What do you mean by acid rain? **[3]**

Solution

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Class 08 - Science

1. **(a)** Both MCPA and 2.4-D
   Explanation: 2.4-D, MCPA, and Butachlor are weedicides that are sprayed in the fields to kill weeds and do not damage the crops.
2. **(d)** Drip system
   Explanation: In the drip system, there is a network of narrow pipes with small holes in the fields. When water falls through these narrow pipes, it falls drop by drop at the position of the roots of the plants. Hence, there is no run-off or wastage of water.
3. It is an artificial statue like structure made of bamboo sticks to which human clothes are worn. This looks like a human being and helps in scaring the field from birds (mistaking it to be a person standing).

4. The process of loosening and turning of the soil is called tilling or ploughing.
5. 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

6. **(c)** Rhizobium
   Explanation: Rhizobium is bacteria found in root nodule of leguminous plants, responsible for fixing of nitrogen. It will not consume solid food. On the other hand, Amoeba, Paramecium, and Euglena are holozoic and consume solid food.
7. **(c)** Common cold
   Explanation: A person suffering from a common cold should always cover his mouth and nose with a handkerchief while sneezing so that microorganisms do not get into the air.
8. Curd.
9. (i) Bacteria
   (ii) Fungi
10. i. Some algae are used as food source as they provide carbohydrates, vitamins (A, C, D,E) and proteins.
    ii. In industry they are used in glass, porcelain, metal paints, varnish, polish, toothpaste and cosmetics manufacturing .

iii. Algae fix nitrogen.
iv. Algae products like shells of diatoms gives the gritty texture to toothpaste.

11. **(c)** incineration
Explanation: Incineration is a waste treatment process by burning. Incineration of plastics release foul smell and toxic gases into the environment that leads to air pollution.

12. **(b)** polymers are joined by strong cross links
Explanation: Bakelite is a thermosetting plastic. And thermosetting plastics does not melt on heating because such polymers are joined by strong cross links.

13. Polythene and PVC.
14. Terylene is a popular polyester.
15. There are following two type of plastics:
    i. Thermoplastics
    ii. Thermosetting plastics.
    iii. **Thermoplastics:** The plastics which get deformed easily by heating and can be easily are known as thermoplastics. Polythene and PVC are the examples of Some thermoplastics.
    iv. **Thermosetting Plastics:** The plastics which when moulded once cannot be soften again by heating are called thermosetting plastics. Bakelite and Melamine are t' most common examples of thermosetting plastics. Bakelite is used in making electrical switches, handles of various utensils. Melamine is used for making floor tiles, kitchenware and fabrics which resist fire.

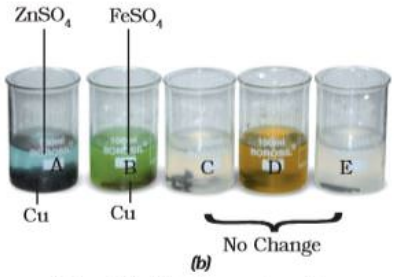
Some articles made of plastic

16. **(b)** statement ii) is correct but i) is wrong
Explanation: Non-metals are bad conductor of electricity as free electron is absent in non-metals. Graphite is a non-metal but it is a good conductor of electricity.

17. **(b)** statement ii) is correct but i) is wrong
Explanation: Nitrogen is an inactive gaseous non-metal. Nitrogen forms the maximum proportion of air. Fluorine is an extremely reactive gaseous non-metal due to smaller size.

18. Aluminium is cheaper and is making a good substance for copper.
19. Boron (B), silicon (Si), germanium (Ge), arsenic (As), antimony (Sb), tellurium (Te), polonium (Po) and astatine (At)
20. Take five beakers of 100 mL and label them A, B, C, D and E. Take about 50 mL of water in each beaker. Dissolve in beakers A and B, a tea spoon of copper caliphate ($CuS0_4$) in beakers C, D and E zinc caliphate ($ZnS0_4$), iron caliphate ($FeS0_4$) and zinc caliphate ($ZnS0_4$), respectively. Put zinc granule (Zn), iron nail (Fe), copper turnings (Cu); copper turnings (Cu) and iron nail (Fe) in the beakers respectively. Observe the changes. We see that in beakers A and B colour is changed while in C, D, E, there is no change of colour. Beakers A and B show the displacement reaction.

(a)



(b)

(a) and (b) : Displacement reactions

Beaker A: Copper caliphate ($CuS0_4$) + Zinc granule (Zn)

Beaker B: Copper caliphate ($CuS0_4$) + Iron nail (Fe)

Beaker C: Zinc Sulphate ($ZnS0_4$) Copper turning (Cu)

Beaker D: Iron Sulphate ($FeS0_4$) + Copper turning (Cu)

Beaker E: Zinc Sulphate ($ZnS0_4$) + Iron nail (Fe)

Reactions:

A. $CuS0_4 + Zn \rightarrow ZnS04 + Cu$

B. $CuS0_4 + Fe \rightarrow FeS04 + Cu$

C. $ZnS0_4 + Cu \rightarrow$ No change

D. $FeS0_4 + Cu \rightarrow$ No change

E. $ZnS0_4 + Fe \rightarrow$ No change

In these reactions, we have seen that only more reactive metal displaces the less reactive metal but the less reactive metal does not do so.

21. **(d)** statement i) is correct but ii) is wrong
Explanation: Kerosene is used as an illuminant in remote villages, where electricity is not available. Carbon black is used for production of polish and filler in tyres industry.

22. **(b)** anaerobic bacteria
Explanation: Natural gas is formed by decomposition of vegetation by anaerobic bacteria in absence of oxygen. During this anaerobic decomposition methane gas is produced.

23. The slow process of conversion of dead vegetation into coal is called as carbonisation.

24. No, we cannot use all our natural resources forever, because these are going to exhaust one day.

25. Fossil fuels like coal, petroleum, natural gas etc., once exhausted completely, cannot be renewed immediately. It is a very long and slow process.
It takes millions of year to form again. So it is always suggest to use them carefully and conserve for future generation.
Hence fossil fuels consider as non- renewable source of energy.

26. **(d)** all three states
Explanation: Fuels are present in all three states. In solid state, coal and wood, In liquid state kerosene and petrol and in gases state, CNG and LPG

27. **(b)** statement ii) is correct but i) is wrong
Explanation: Carbon dioxide gas is produced during combustion but carbon dioxide is non-inflammable substance. Carbon dioxide is heavier than oxygen that help in extinguish the fire.

28. Charcoal does not burn with flame because it is not volatile in nature or does not vapourise on burning, so it glows only.

29. There are three zones of flame:
(i) Non-luminous zone

(ii) Luminous zone and
(iii) Dark zone.

30. If a person's clothes catch fire, he/she has to be rolled in a blanket so that the oxygen supply cuts off and hence the fire extinguishes. Blanket cuts off the supply of oxygen to the person's body and as it is the supporter of combustion, the fire puts off.
31. **(b)** Thrust
    Explanation: The perpendicular force acting per unit area is called Thrust. S.I. unit of thrust is Newton.
32. **(b)** pressure of water
    Explanation: When we press the bulb of a dropper with its nozzle kept in water, air in the dropper is seen to escape in the form of bubbles and creates the vacuum in the bulb. Once we release the pressure on the bulb, water gets filled in the dropper because the pressure in water is more than the pressure in the bulb so water moves from the higher pressure to the lower pressure.
33. The force brings about a change is the shape of hot iron piece.
34. Various big or small actions make us feel the force. We hit or catch many objects in our daily life. We see that a moving ball stops on its own. The ball changes the direction of its motion when it is hit with a bat. We make lassi etc. by churning of curd. These are many actions which help us to feel that a force is exerted.
35. 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.
36. **(c)** Dynamic or kinetic friction
    Explanation: The friction develops when one body moves over the other body is called kinetic friction. Rolling friction and sliding friction are two types of kinetic friction.
37. **(c)** Frictional force is not enough to prevent slip
    Explanation: Slippery ground have very less friction to prevent slipping so, it is difficult to walk on such grounds. As it does not allow two surfaces to be in contact with each other properly.
38. We would not be able to walk on the surface if there is no friction on the floor. It is the friction which helps us to stand or walk on the surface. The grooves of our feet or shoes are locked into the irregularities of the floor and make us stand.
39. A shape which is wide in middle and tapered at ends is called a streamlined shape. Such a shape reduces drag or fluid friction.
40. Cartilage is present in the joints of our body which helps in reducing friction and causes a smooth movement. As the age increases, the cartilage becomes less effective.
    Due to which the force of friction increases.
    As the force of friction increases means that smoothness of movement decreases. As a result, the movement of joint become difficult which leads to pain in joints.
41. **(d)** above 20,000 Hz
    Explanation: Ultrasound has frequency of vibration above above 20000 Hz.
42. **(d)** Femur
    Explanation: Femur bone is not present in ear. Anvil, Hammer and stirrups are present in the ears.
43. Those instruments have taut strings, which vibrate when they are plucked, struck, or played with a bow.
44. The voice of high frequency is produced when the vocal cards are tight and thin.
45. Bats locate and catch the prey by the mechanism called echolocation. During the hunting time, the bats produce a constant stream of high-pitched sounds. When the sound waves produced by them hits an insect or other animal, the echoes bounce back to the bat that guides them to the prey. The time interval between cry and echo helps to determine the distance of the prey.

46. **(c)** Fermentation
    Explanation: Fermentation bacteria are anaerobic, but use organic molecules as their final electron acceptor to produce fermentation end-products. Streptococcus, Lactobacillus, and Bacillus are some of the examples of anaerobic bacteria.
47. **(d)** Petroleum refinery
    Explanation: Small amounts of sulphur dioxide and nitrogen oxide is released from petroleum refinery. These gases combine with water during rain to cause acid rain.
48. Combustion of fossil fuels generates a lot of air pollution. Solar energy and wind energy: are two alternative sources of energy which do not cause any pollution.
49. A thick fog-like layer in the atmosphere is called smog.
50. Gases like Sulphur dioxide and nitrogen dioxide react with water vapour present in the atmosphere to form sulphuric acid and nitric acid. The acid drops down with rain, making the rain acidic. This is called acid rain.