Indian School Al Wadi Al Kabir

Final Examination (2024-25)

CLASS: VII Subject: SCIENCE MAX.MARKS: 80
DATE: 06/03/2025 Set -II TIME: 3 HOURS

General Instructions:

i. All questions are compulsory. Marks are indicated against each section.
*ii. The question paper comprises **8** pages and **39** questions in 5 sections A, B, C, D, and E.*
*iii. Q 1 to Q 16 in section A -MCQ carries **ONE** mark each. Write the correct answer along with the option in the answer script.*
*iv. Q 17 to Q 20 in **section A** -Assertion and Reason type and carry **ONE** mark each.*
*v. Q 21 to Q 26 in **section B** are Short Answer Type Questions and carry **TWO** marks each.*
*vi. Q 27 TO Q 33 in **section C** are Short Answer Type Questions and carry **THREE** marks each.*
*vii. Q 34 TO Q 36 in **section D** are Long Answer Type Questions and carry **FIVE** marks each.*
*viii. Q 37 TO Q 39 in **section E** are Case study/Paragraph Questions and carry **FOUR** marks each.*
ix. Write the same question number as given in the question paper.
x. Whitener should not be used in the answer script.
xi. Diagrams should be drawn using a pencil.

SECTION A (1X20=20)

1. Name a disease caused by improper sewage disposal.
   a) Rickets
   b) Cholera
   c) Heart attack
   d) Diabetes

2. Water absorption through roots can be increased by keeping plants:
   a) In the shade.
   b) In dim light.
   c) Under the fan.
   d) Covered with a polythene bag.

3. The gas we use in the kitchen is called liquefied petroleum gas (LPG). In the cylinder, it exists as a liquid. When it comes out from the cylinder it becomes a gas (Process – A) then it burns (Process – B). The following statements pertain to these changes. Choose the correct one.
   a) Process – A is a chemical change.
   b) Process – B is a chemical change.
   c) Both processes A and B are chemical changes.
   d) None of these processes is a chemical change.

4. An alloy that does not rust and is made by mixing iron with carbon and metals like chromium, nickel and manganese are:

a) Brass
b) Stainless steel
c) Bronze
d) Alnico

5. What will happen if all the seeds of a plant fall in the same place?

a) It enables the plant to invade new habitats for wider distribution.
b) All plants will have sufficient space to grow.
c) There will be competition between the plant and its seedlings for sunlight, water, and minerals.
d) The seeds will grow into healthy plants.

6. A student was provided with a three-dimensional model of the human circulatory system. The teacher asked the student to identify the heart from all the structures in the model. How would the student be able to locate the heart in the circulatory system?

a) A structure that is located in the chest cavity with its upper tip slightly tilted towards the left.
b) A structure that is located in the chest cavity with its lower tip slightly tilted towards the left.
c) A structure that is located in the abdominal cavity with its lower tip slightly tilted towards the right.
d) A structure that is located in the abdominal cavity with its upper tip slightly tilted towards the left.

7. A person placed the index finger of his right hand on the inner side of his left wrist and felt some throbbing movements. What terminology can be used for these movements, and what could be the reason for feeling them?

a) Pulse; due to the flow of blood into arteries.
b) Pulse; due to the flow of blood into veins.
c) Breathing rate, due to the flow of blood into veins.
d) Breathing rate, due to the flow of blood into the lungs.

8. Which of the following statements explains the benefit of an LED over a normal bulb?
a) It produces electricity from heat.
b) It gives off more heat along with the light.
c) It consumes a lesser amount of electricity.
d) It does not require electricity to produce light.

9. The continuous flow of electric current through a circuit requires:

a) A source of electric current.
b) A conducting material.
c) An uninterrupted path for the flow of electric current.
d) All of the above.

10. Kitchen waste, such as food particles, used tea leaves, and grease, is suggested to be disposed of along with other organic waste, like fruit peels, in the trash. However, most households dispose of oils, tea leaves, etc., down the kitchen sink for convenience. Which of the following is the best argument to persuade households to stop this practice?
    a) The organic waste should be buried in the soil outside the house.
    b) Organic and inorganic waste should be disposed of separately.
    c) The decomposing organic waste can create a foul smell in kitchens.
    d) Food particles, oils, and fats clog smaller drains in sewerage.

11. The expansion of one of the following liquids is used to measure the temperature in ordinary thermometers. This liquid is :
    a) Oil
    b) Water
    c) Glycerol
    d) Mercury

12. An image of an object is observed in a plane mirror. The distance between the mirror and the image is 15 cm. If the pencil is moved 3 cm away from the mirror, what will be the distance between the image and the object?
    a) 30 cm
    b) 36 cm
    c) 24 cm
    d) 6 cm

13. Which of the following would you prefer to use while reading small letters in a dictionary?

    a) A concave mirror
    b) A convex lens
    c) A convex mirror
    d) A concave lens

14. In which part does Amoeba digest its food?
    a) Food vacuole
    b) Nucleus
    c) Pseudopodia
    d) Cytoplasm

15. An electric fuse consists of a metal wire that breaks the circuit when the electrical load is too high. What causes the wire to break under high electrical load?
    a) It is made of metal.
    b) It has a low melting point.
    c) It is a good conductor of heat.
    d) It is a poor conductor of electricity.

16 . Which of the following correctly describes assimilation?

a) The process of breaking large food molecules into simpler molecules.
b) The process by which undigested food is ejected out of the body.
c) The process by which the absorbed nutrients from digested food are taken up by the cells and incorporated into the body.
d) Process of inter-exchange of oxygen and carbon dioxide between hemoglobin and the cells of the body.

For the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below

(i) Both A and R are true and R is the correct explanation of the assertion.
(ii) Both A and R are true but R is not the correct explanation of the assertion.
(iii) A is true but R is false.
(iv) A is false but R is true.

17. **Assertion (A):** We generally represent an electric circuit by its circuit diagram.
Reason (R): A switch is a simple device that either breaks the circuit or completes it.

18. **Assertion (A):** Filtering of blood takes place in the lungs.
Reason (R): Salts and urea are removed along with water as sweat.

19. **Assertion (A):** The white light of the sun is composed of seven colours.
Reason (R): The prism adds colour to the white sunlight.

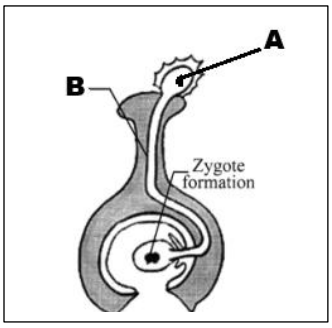
20. **Assertion (A):** Flowers pollinated by insects are colourless and small in size.
Reason (R): Seeds with spines are dispersed by humans and animals.

SECTION B (2X6=12)

21. a) How do fungi and fern plants reproduce to give rise to new plants?

b) Observe the figure given alongside.

(i) Identify A and B



22. a) Name any two chemicals used for disinfecting water.
b) What do you mean by wastewater treatment?

23. Differentiate between cells connected in series and cells connected in parallel.

24. Explain the process of making a simple electromagnet.

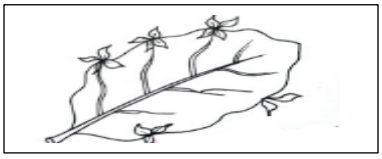
25**.** Draw a neat and labelled diagram of the human excretory system.

26. State two differences between a laboratory thermometer and a clinical thermometer.

SECTION C (3X7=21)

27. a) Draw and label the female reproductive part of a flower.

b) If a leaf of a plant falls on moist soil, it starts producing new plants.



i) Name the plant.

ii) How does this plant reproduce?

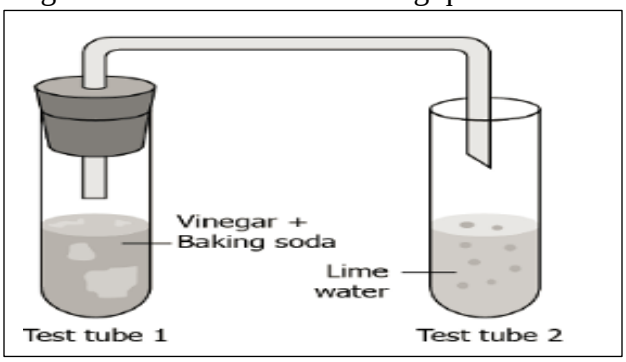
c) What are the advantages of vegetative propagation?

28. a) i) Where is the bile produced?
ii) Which component of the food does it digest?

b) Name the type of carbohydrate that can be digested by ruminants but not by humans. Give the reason also.

c) What is the function of villi in the process of digestion?

29. Observe the given figure and answer the following questions.



a)

i) Name the acid present in vinegar used in this activity.

ii) Which gas is produced when baking soda reacts with vinegar?

b) What change will you observe in lime water and why?

c) Can the activity mentioned above be classified as a physical or chemical change? Justify your answer.

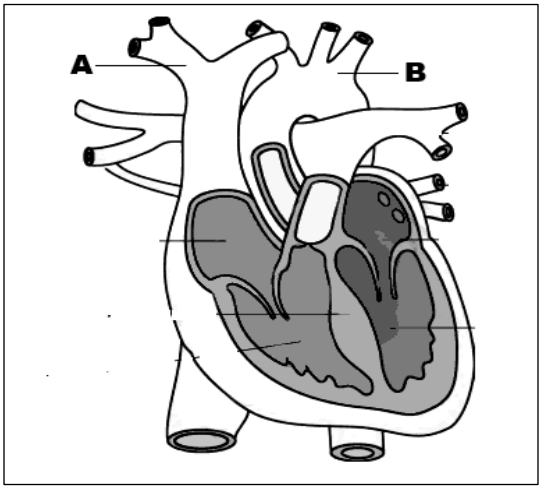
30. a) Sponges and Hydra do not possess a circulatory system. How do they carry out the distribution of food and other substances?

b) Mention the functions of the following blood cells.

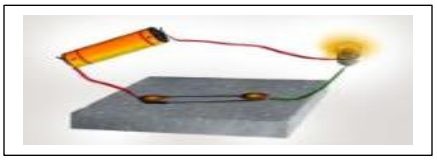
i) RBC

ii) Platelets

c) Identify the labelled parts A and B marked in the given diagram of the human heart.



31. a) Draw a circuit diagram to represent the circuit type shown in the figure below.



b) How does the electric heater or an electric iron work?

c) Why are MCBs considered better than all other fuses?

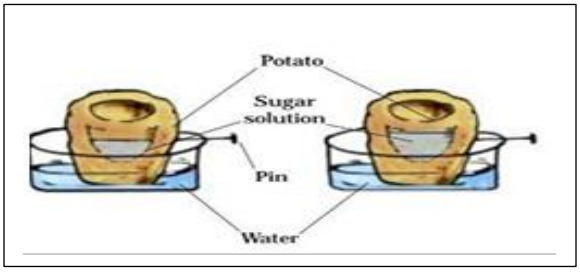
32. a) Give an example of a chemical reaction for each of the following situations:

i) Sound is produced.

ii) A change in smell.

b) Describe how crystals of copper sulphate are prepared.

33. a) Observe the figure given below and answer the questions:



i) What will you observe after a few hours?

ii) How did the water get inside the potato?

b) What do you mean by dialysis?

c) Transpiration serves several useful functions in plants. Justify this statement.

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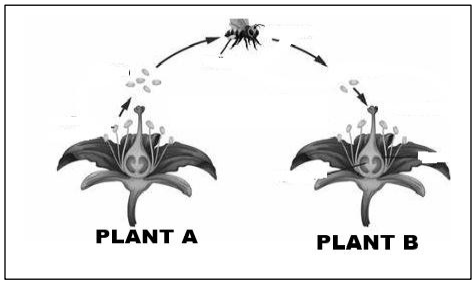
SECTION D (5X3=15)

34. a) Describe the process of reproduction in yeast. Support your answer with a neat , labelled diagram.

b) Observe the figure given below and answer the questions that follow:

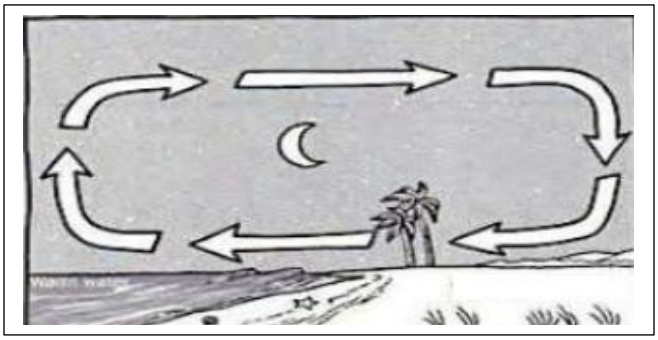
i) Identify the type of pollination shown alongside.

ii) Explain the type of pollination shown alongside.



c) What is meant by the term fertilisation?

35. a) Identify and explain the natural phenomena shown in the picture given below.



b) i) Define radiation.

ii) Give any two examples where heat is transferred by radiation.

c) Why does wearing multiple layers of clothing in winter keep us warmer than wearing just one thick layer of clothing?

36. a) Describe an activity to show that light travels in a straight line.

b) Mention any two key differences between a real and a virtual image.

c) Draw diagrams to differentiate between concave and convex lenses.

SECTION E (4X3=12)

37. **Aryan, a Class 7 student, loved eating chocolates and sugary snacks. One day, he felt a sharp pain in his tooth while chewing food. Concerned, he visited a dentist, who explained the importance of teeth in digestion and how tooth decay occurs. The dentist told Aryan that it is important to chew food properly before swallowing as chewing helps in the mechanical breakdown of food and easier digestion. We have two sets of teeth, the first set of teeth grows during infancy and they fall off at the age of six to eight years. These are termed as milk teeth. The second set that replaces them is the permanent teeth. The permanent teeth may last throughout life or fall off during old age or due to some dental disease. However, poor oral hygiene and excessive sugar intake can lead to tooth decay. Bacteria in the mouth feed on sugary food particles and produce acids that damage tooth enamel, leading to cavities. The dentist advised Aryan to brush twice a day, avoid excessive sweets, and eat fiber-rich foods to keep his teeth healthy.**

i) Why is it important to chew food properly before swallowing?
ii) How can we take care of teeth?
iii) Differentiate between milk teeth and permanent teeth.

38. **Water management is the efficient use, conservation, and protection of water resources to meet the needs of all living beings. It involves practices like reducing water wastage, reusing water, and adopting rainwater harvesting techniques. Students can play a crucial role in water management by spreading awareness about the importance of conserving water, using water-saving devices, and avoiding unnecessary water usage. They can also participate in school and community initiatives like organizing clean-up drives for water bodies and promoting sustainable practices at home. By taking these actions, students contribute to preserving this vital resource for the future.**

i) What is water management?
ii) What are some practices involved in water management?
iii) How can students contribute to water management?

39. **The villagers of Rampur lived near a dense forest, relying on it for firewood, medicinal plants, and food. The forest's layered vegetation provided essential food, shelter, and protection for various animals, birds, and insects. Trees played a vital role in preventing soil erosion, while the rich soil supported plant growth. However, excessive tree cutting led to reduced rainfall, soil erosion, wildlife loss, and climate change. Understanding the importance of forests, the villagers acted by planting more trees, protecting wildlife, adopting sustainable practices like selective logging, controlling resource use, and enforcing environmental laws. Over time, their efforts helped the forest regenerate, restoring ecological balance and improving their livelihoods.**

i) How do the different layers of vegetation in a forest help animals?
ii) What happened when too many trees were cut down in Rampur?
iii) Write down the various action plans taken by villagers to restore the forest.