INDIAN SCHOOL AL WADI AL KABIR

FINAL EXAMINATION(2024-25)

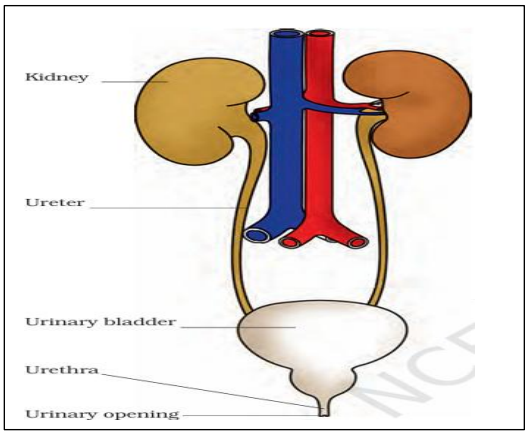
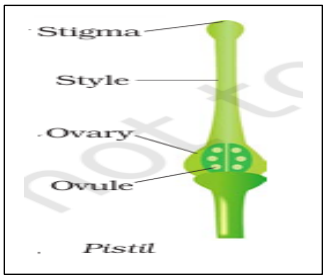
CLASS: VII **Sub: SCIENCE** **MAX.MARKS: 80**

DATE: 06/03/2025 **Set -II** **TIME: 3 HOURS**

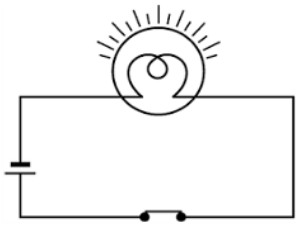
ANSWER KEY

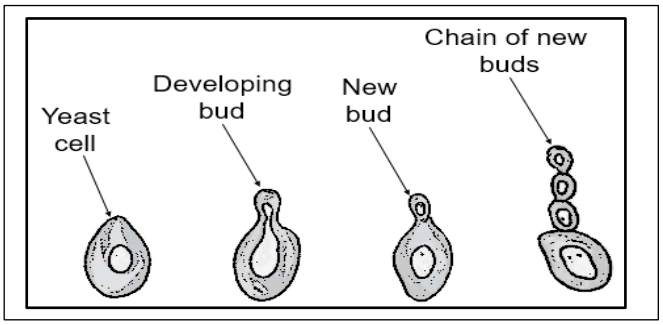
SECTION A (1X20=20)

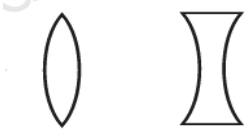
1	b) Cholera	1
2	c) Under the fan	1
3	b) Process – B is a chemical change	1
4	b)Stainless steel	1
5	c) There will be competition between the plant and its seedlings for sunlight, and minerals.	1
6	b) A structure that is located in the chest cavity with its lower tip slightly tilted towards the left.	1
7	a)Pulse; due to the flow of blood into arteries.	1
8	c) It consumes a lesser amount of electricity.	1
9	d) All of the above	1
10	d) Small food particles, oils, and fats clog smaller drains in sewerage.	1
11	d) Mercury	1
12	b) 36 cm	1
13	b)A convex lens	1
14	a) Food vacuole	1
15	b) It has a low melting point.	1
16	c) The process by which the absorbed nutrients from digested food are taken up by the cells and incorporated into the body.	1
17	ii) Both A and R are true but R is not the correct explanation of the assertion.	1
18	iv) A is false but R is true.	1
19	iii) A is true but R is false.	1
20	iv) A is false but R is true.	1
	SECTION B (2X6=12)	
21	a) They grow by the process of spore formation. Each spore is covered by a hard-protective coat to withstand unfavourable conditions. Under suitable conditions, spores germinate and develop into new individuals. b) A-Pollen grain B-Pollen tube	1 ½ + ½
22	a) Chlorine and Ozone b) The process of removing impurities from wastewater before it can be reused or sent to the water bodies is called Wastewater treatment.	½ + ½ 1
23	The positive terminal of one cell is connected to the negative terminal of the other cell in a row, one after another is called cells in series connection.	1

<table>
<tr><td></td><td>The cells which are arranged parallel to one another are called cells in parallel connection.</td><td>1</td></tr>
<tr><td>24</td><td>Take a long piece of insulated, flexible wire and an iron nail. Wind the wire tightly around the nail in the form of a coil. Connect the free ends of the wire to the terminals of a cell through a switch. When the current is switched on, the iron nail acts like an electromagnet.</td><td>2</td></tr>
<tr><td>25</td><td> 
</td><td>1+1(draw and label)</td></tr>
<tr><td>26</td><td><table>
<tr><th>LABORATORY THERMOMETER</th><th>CLINICAL THERMOMETER</th></tr>
<tr><td>i) The range of a laboratory thermometer is generally from -10˚C to 110˚C</td><td>i) The range of a clinical thermometer is from 35˚C to 42˚C</td></tr>
<tr><td>ii) Kink is absent</td><td>ii) Kink is present</td></tr>
<tr><td>iii)It is used for measuring the temperature of other objects</td><td>iii)It is used only for measuring human body temperature</td></tr>
</table></td><td>½ + ½
½ + ½</td></tr>
<tr><td></td><td>SECTION C(3X7=21)</td><td></td></tr>
<tr><td>27</td><td>a)
 

b) (i)Bryophyllum</td><td>1
+1(drawing &any two labelling)</td></tr>
</table>

	(ii) Bryophyllum **has buds in the margins of leaves** If a leaf of this plant falls on moist soil, each bud gives rise to a new plant c) i) Plants produced by vegetative propagation **take less time to grow and bear flowers and fruits** earlier than those produced from seeds. ii) The **new plants are exact copies of the parent plant**, as they are produced from a single parent.	½ + ½ 1
28	a) The liver secretes the bile juice which is temporarily stored in the gall bladder. Bile plays an important role in the digestion of fats. It breaks down fats into fatty acids and glycerol. b) Cellulose. This is because humans lack the cellulose-digesting bacteria in their stomachs. Ruminants have a large sac-like structure between small and large intestines called caecum where the food containing cellulose is digested by the action of certain bacteria. c) The villi increase the surface area for absorption of the digested food. Each villus has a network of thin and small blood vessels close to its surface. The surface of the villi absorbs the digested food materials.	½ + ½ ½ + ½ 1
29	a) i) Acetic acid ii) Carbon dioxide b) Lime water turns milky on passing carbon dioxide gas through it due to the formation of calcium carbonate. c) Chemical change, new substance with new property formed or any characteristics of chemical change	½ + ½ ½ + ½ ½ + ½
30	**a**) The water in which these organisms live brings them food and oxygen as it enters their bodies. The water carries away waste materials and carbon dioxide as it moves out. b) i) RBC- Oxygen binds with haemoglobin present in RBC and is transported to all parts of the body. ii) Platelets-Platelets help in the clotting of blood. c) A-Vena Cava B- Aorta	1 ½+ ½ ½+ ½
31	a) 	1

	b) An electric heater and an electric iron works based on the heating effect of electricity. These appliances contain a coil of wire called an element. When these appliances are switched on after connecting to the electric supply, the elements become red hot and give out heat. **c)** These are switches that automatically turn off when the current in a circuit exceeds the safe limit. You turn them on and the circuit is once again complete.	1 1
32	a) i)Bursting of firecrackers **ii)** Spoilage of food **b)** Crystals of copper sulphate are prepared using the crystallisation method, which is described as follows ● Take a cupful of water in a beaker. ● Add a few drops of dilute sulphuric acid to this. ● Heat the water and when it starts boiling, add copper sulphate powder while still stirring. ● **Add the copper sulphate powder till the solution becomes saturated**. **Filter into a china dish and allow it to cool.** ● **The solution should be kept undisturbed. Slowly, the crystals of copper sulphate separate.**	½+ ½ 2
33	a) i) We will find an increase in the level of sugar solution ii) For a very short distance water can move from one cell to another. b) Dialysis is the process used for cleaning the blood by separating the waste products in an artificial medium. c) Transpiration serves the following function in plants • It helps in lowering the temperature of plants, thus preventing heat injury to plants. • Helps in transpiration pull, which helps in raining water on higher plants. • It also causes loss of water absorbed by plants.	½ +½ 1 1
	SECTION D(5X3=15)	
34	a) In this method, a small bulb-like projection comes out from the parent yeast cell. It is called a bud. The bud gradually grows and gets detached from the parent cell and forms a new yeast cell. This new yeast cell grows, matures, and produces more yeast cells.  	1+1 (drawing, Labelling)

	b) Cross-pollination. The pollen grains are transferred to the stigma of a flower of a different plant of the same kind. c) The process in which the male gamete fuses with the female gamete to form a new cell (called a zygote) is called fertilisation	½ + 1½ 1
35	a) LAND BREEZE – The land cools much faster at night than the seawater. So, the air above the land surface is cooler than the air over the sea. The warm air above the sea surface rises up. The cool air from the land moves towards the sea. This flow of air from land towards the sea is called land breeze. b) i) RADIATION: It is a process of heat transfer which does not require any material medium. ii) From the sun the heat comes to us. When we sit in front of a room heater, we get heat. A hot utensil kept away from the flame cools down. Our body too, gives heat to the surroundings and receives heat from it by radiation. c) More layers of clothing keep us warm in winter as they have a lot of space between them. This space gets filled up with air. As air is a bad conductor, it does not allow the body heat to escape.	2 1 ½ +½ (any two) 1
36	a) Take a small rubber tube. Light a candle. Point the tube towards the lighted candle. Look through the tube to see the flame of the candle. You can very clearly see the candle flame. Now, bend the tube a little and again try to see the flame of the candle through it. You will not be able to see the candle flame through a bent pipe. b) **REAL IMAGE** / **VIRTUAL IMAGE** i) An image that can be obtained on a screen is called a real image / i) An image that cannot be obtained on a screen is called virtual image ii) Image is always inverted / ii) Image is always erect iii) eg: Pinhole camera. / iii) eg: Image formed by a plane mirror. c) 	2 2 (any two) 1

	SECTION E (3X4=12)	
37	i) **I**t is important to chew food properly before swallowing as chewing helps in the mechanical breakdown of food and easier digestion. ii) Brush twice a day, avoid excessive sweets, and eat fibre-rich foods to keep his teeth healthy. iii) First set of teeth grows during infancy and they fall off at the age of six to eight years. These are termed 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.	1 1 2
38	i) Water management is the efficient use, conservation, and protection of water resources to meet the needs of all living beings. ii) Practices like reducing water wastage, reusing water, and adopting rainwater harvesting techniques. iii) 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.	1 1 2
39	i) The forest's layered vegetation provided essential food, shelter, and protection for various animals, birds, and insects. ii) Excessive tree cutting led to reduced rainfall, soil erosion, wildlife loss, and climate change. iii) Planting more trees, protecting wildlife, adopting sustainable practices like selective logging, controlling resource use, and enforcing environmental laws.	1 1 2