INDIAN SCHOOL AL WADI AL KABIR

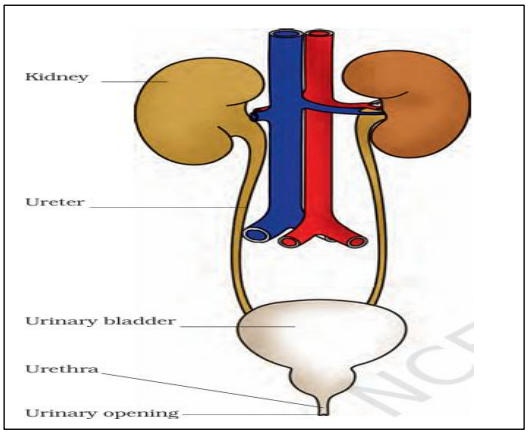
MID-TERM EXAMINATION (2025-2026)

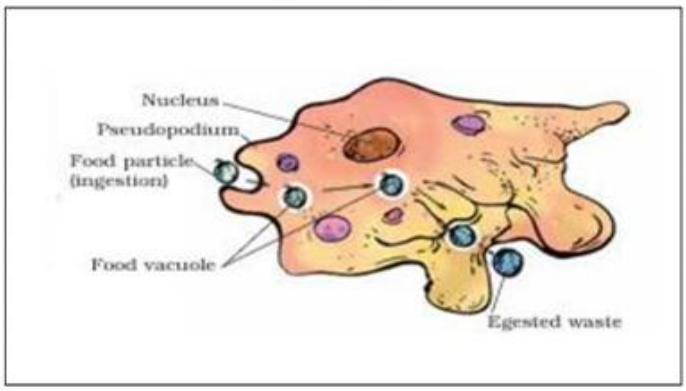
CLASS: VII **Sub: SCIENCE** **MAX.MARKS: 80**

DATE: 16/09/2025 **MARKING SCHEME**

SECTION A (1X20=20)

1	b) Parasite	1
2	c) Sucking	1
3	b) Algae are green due to the presence of chlorophyll, which helps them capture sunlight for photosynthesis.	1
4	a) 1: Bar screen, 2: Aeration, 3: Disinfection	1
5	c) Under the fan.	1
6	b) Odometer	1
7	c) Window cleaner and Soap	1
8	c) The process by which the absorbed nutrients from digested food are taken up by the cells and incorporated into the body.	1
9	c) Lichen	1
10	d) 70 km/h	1
11	b) Q and R	1
12	b) A structure that is located in the chest cavity with its lower tip slightly tilted towards the left.	1
13	d) Watering plants	1
14	a) Chewing adds saliva to the food, which converts starch into sugars.	1
15	c) By providing the required temperature and protecting from unfavourable weather conditions.	1
16	b) Sound of Nirmal's heartbeat.	1
17	iii) A is true, but R is false.	1
18	iv) A is false, but R is true.	1
19	(ii) Both A and R are true, but R is not the correct explanation of the assertion.	1
20	(ii) Both A and R are true, but R is not the correct explanation of the assertion.	1
	SECTION B (2X6=12)	
21	a) Saprotrophic nutrition b) The saprotrophs secrete digestive juices on the decaying and dead matter. These juices convert the matter into a solution. The saprotrophs then absorb the nutrients from the solution**.**	1 1
22	a) Time period=Total time taken/No of oscillations 36/12=3s	½ + ½ ½ + ½
23	a) Great care should be taken while handling laboratory acids and bases because these are corrosive in nature and can cause skin irritation and burns. b) **Distilled water is neutral in nature**. It can be verified by using **red and blue litmus** papers. Neither of the litmus papers will show a colour change with distilled water. This proves that distilled water is neutral.	1 ½ + ½=1

24		1+1(draw and label)
25	a) Eucalyptus trees should be planted all along sewage ponds as these trees absorb all surplus wastewater rapidly and release pure water vapour into the atmosphere, keeping our environment clean. b) Chlorine and Ozone	1 1
26	a) The fats cannot be digested easily **because they are insoluble in water** and are present as large globules, so they require bile for breaking large fat globules into tiny droplets. b) The Tongue mixes saliva with the food during chewing and helps in swallowing food. It has taste buds that detect different tastes of food. The Tongue is used for talking.	1 ½ + ½ Any two
	SECTION C(3X7=21)	
27	a) Yes, Insectivorous plants have green leaves and can **perform photosynthesis** to prepare their own food. However, they grow in **nitrogen-deficient soil**. They **feed on insects** to obtain nitrogen compounds necessary for their growth. b) The mode of nutrition in which organisms **make their own food** using inorganic materials such as carbon dioxide, water, and minerals is called autotrophic nutrition. The mode of nutrition in which organisms do not prepare their own food but are **directly or indirectly dependent on plants** for food is called heterotrophic nutrition.	1 1+1

28	a) **Cellulose**. This is because **humans lack the cellulose-digesting bacteria** in their stomachs. Ruminants have a large sac-like structure between the small and large intestines called the caecum, where the food containing cellulose is digested by the action of certain bacteria.  	1 1 +1 (Diagram, label)
29	**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-Pulmonary artery B- pulmonary vein	1 ½ + ½ ½ + ½
30	a) Substances that are used to test whether a given substance is acidic or basic based on the colour change. b) It becomes hot because it is an example of a neutralisation reaction; heat is always produced or evolved. The evolved heat raises the temperature of the reaction mixture. Therefore, if we touch the test tube immediately after the neutralisation reaction, it is found to be hot. c) When an ant bites, it injects formic acid into the skin. Calamine solution contains zinc carbonate, which is basic in nature. Therefore, it is applied to the skin to neutralise the effect of formic acid.	1 ½+ ½ ½+ ½
31	a) Salts are compounds that are formed when acids react with bases. For example, sodium chloride is formed when hydrochloric acid reacts with sodium hydroxide. b)	1

TEST SOLUTION	EFFECT ON BLUE LITMUS	EFFECT ON CHINA ROSE
SOAP SOLUTION	NO CHANGE	**GREEN**
SUGAR SOLUTION	**NO CHANGE**	NO CHANGE
VINEGAR	RED	**PINK**
BAKING SODA	NO CHANGE	**GREEN**

½+ ½+ ½+ ½=2

32 a)

i) Solids like faeces settle at the bottom while treating sewage, and this material is called sludge. — 1

ii) Sludge can be treated as follows:
Sludge is removed using a scraper and then transferred to a tank where it is decomposed by anaerobic bacteria to produce biogas. — 1

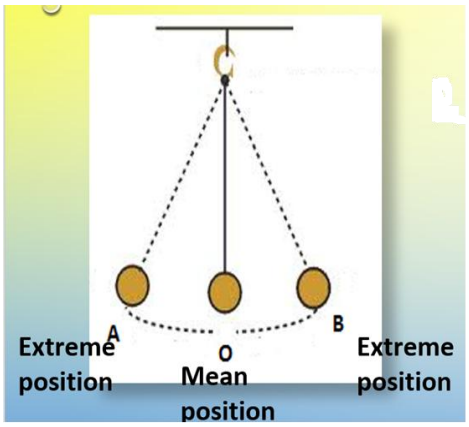
b)

i)Turn off taps while brushing your teeth.
ii) Mop the floor instead of washing.
iii)Take shorter showers-5 minutes or less.
iv)Leaking taps or water pipes should be repaired immediately. — ½ +½(any two)

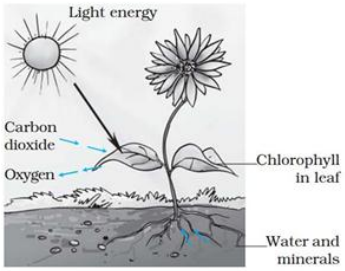
33 a) The given time-measuring device is a sundial. It works on the principle that as the sun's position in the sky changes, the position and length of the shadow cast by the object also change. — ½ + 1

b) It does not work during a cloudy day or at night — ½

c)



1

	SECTION D(5X3=15)	
34	a)  b) i) Lichen is an association between algae and fungi. Algae contain chlorophyll and provide food and nutrition to the fungus, while the fungus provides water, minerals, and shelter to the algae. ii) They have a symbiotic relationship. c) The units that constitute the bodies of living organisms are called cells. The cell is enclosed by a thin outer boundary, called the cell membrane. Most cells have a distinct, centrally located spherical structure called the nucleus. The nucleus is surrounded by a jelly-like substance called cytoplasm.	1+1 (drawing, any two Labelling) 1+1 1
35	a) i) A- food pipe, B stomach, C -pancreas, D-Large intestine ii) **Pancreas** - The pancreas is a large, cream-coloured gland located just below the stomach. The pancreas secretes **pancreatic juice.** The pancreatic juice acts on carbohydrates and proteins and **changes them into simpler forms.** **b) The villi are finger-like outgrowths on the inner walls of the small intestine.** **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 =2 ½ +½ =1 1 +1 = 2
36	a) **Arteries are the thick blood vessels.** / **Veins are the thin blood vessels.** **They transport blood away from the heart.** / **They transport blood towards the heart.** **They carry oxygen-rich blood from the heart to all the parts of the body except the pulmonary artery.** / **They carry carbon dioxide-rich blood from all the parts of the body to the heart except the pulmonary vein.** **There are no valves present.** / **Valves are present which allow blood to flow only towards the heart.** b) i) We will find an increase in the level of the sugar solution ii) For a very short distance, water can move from one cell to another.	½ + ½ ½ + ½ (any two) 1 1

	c) Transpiration serves the following function in plants • It helps in lowering the temperature of plants, thus preventing heat injury of plants. • It helps in pulling water to great heights in tall trees.	1(any two)
	SECTION E (3X4=12)	
37	i) Organic acids are naturally occurring acids present in plants and animals. ii) The concentration of a mineral acid can be decreased by adding water to it; adding water dilutes the acid and makes it less harmful. iii) The rain containing excess acids is called acid rain. The rain becomes acidic because carbon dioxide, sulphur dioxide, and nitrogen dioxide gases, which are released into the air as pollutants, dissolve in raindrops to produce carbonic acid, sulphuric acid, and nitric acid, respectively. Acid rain destroys plants, pollutes water and soil, and damages buildings and historical monuments.	1 1 ½ + 1½
38	i) They are special toilets where earthworms treat human waste and change it into something called vermi cakes ii) Vermi cakes are used as natural manure for plants. It keeps the soil healthy and the environment clean. iii) Sanitation and disease are related to each other. Sanitation involves the proper disposal of sewage and refuse from houses and public places. If sanitation is there, no disease will occur, but if sanitation is not done, various types of disease will occur and spread. So, sanitation should be maintained to avoid disease.	1 1 2
39	i) Vehicle A -The steeper the slope of the graph, the faster the object moves. ii) The advantage of a distance–time graph is that it clearly shows the nature of the motion of an object, whether uniform or non-uniform. iii) Vehicle A- uniform motion – it covers equal distances in equal intervals of time; the motion is said to be uniform. Vehicle B – non-uniform- it covers unequal distances in equal intervals of time; the motion is called non-uniform.	1 1 1+1