

APEEJAY SCHOOL, PITAMPURA
SUMMATIVE ASSESSMENT-I
CLASS IX
SUBJECT: SCIENCE

TIME ALLOWED- 3hrs.

MAXIMUM MARKS-90

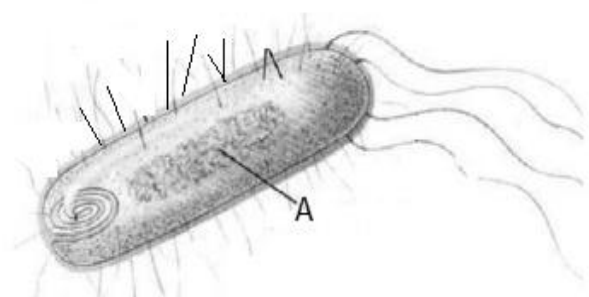
Instructions:

- 1. The question paper comprises of two sections - A and B.**
- 2. All the questions are compulsory.**
- 3. All questions of section A and all questions of Section B are to be attempted separately.**
- 4. Marks are indicated against each question.**

SECTION A

1.	Name the chemical substance that a)Forms the waxy coating above the epidermis b)Found in the cell wall of Sclerenchyma	1
2.	A particle is moving with a uniform speed. Is it necessary that it is moving along a straight line?	1
3.	Which physical principle is involved in the working of a jet plane?	1
4.	a). Why it is not possible to distinguish the particles of the solute from those of the solvent in a true solution? b).What is the importance of diffusion of gases in water in nature?	1 1
5.	What are macro - nutrients ? Name any two macro- nutrients?	2
6.	An apple is dropped from the top of a multistory building. At the same instant, an arrow is shot vertically upwards from ground with 11m/s velocity. The arrow hits the apple after 2sec. Calculate the height of the building.	2
7.	a).Give only two point of difference between boiling and evaporation. b).Why bottled drinks are cooled more effectively when surrounded by lumps of ice than iced water?	2 1
8.	You are provided with a mixture containing iron fillings, ammonium chloride and sodium chloride. Name and describe the separating method in order that you would use to separate constituent from the mixture.	3
9.	Feroz and Ahmed went to a restaurant to have dinner. Feroz picked up the glass of water to drink but he immediately kept it back. He said “The water was not fit for drinking”. Based on the above information answer the following questions. a). What could be the reason that Feroz kept the water back? b).How could have been the water made fit in the restaurant for drinking? Name the process. c). Which values are promoted by the restaurant people here?	3
10.	What role areolar tissue plays in human body & mention any two locations where it is present.	3

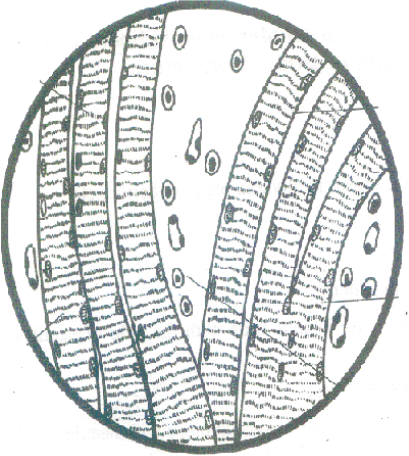
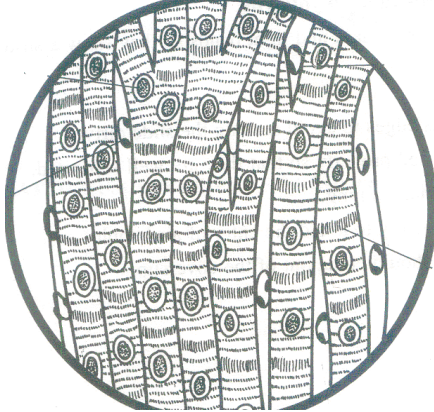
11.	Ram selected Catla , Rohu, and Mrigals along with grass carps for composite fish culture. a) Explain the advantage for this particular selection of different fish types for Ram? b) Give any one problem which Ram can face with such composite fish culture.	3
12.	Draw velocity – time graph of a body starting from rest with a uniform acceleration of 2m/s^2 . Also calculate distance travelled from the graph in 5seconds.	3
13.	What type of motion does a particle has, if the : a) Velocity – time graph is parallel to the time axis. b) Velocity – time graph is a straight line passing through the origin and has constant slope. c) Position – time graph is a straight line passing through the origin and has constant slope. Give reason to support your answer.	3
14	A train travels at a speed of 60km/hr for 0.52hr, at speed 30km/hr for next 0.24hr and then at 70km/hr for the next 0.71hr. What is the average speed of the train?	3
15	A large truck and a car, both moving with a velocity of magnitude “v”, had a head - on collision and both of them came to a halt after that. If the collision last for 1sec : a) Which vehicle experiences a greater force ? b) Which vehicle experiences a greater change in momentum? c) Which vehicle experiences a greater acceleration? Give reason to support your answer	3
16	A rifle of mass 3kg fires a bullet of mass 0.03kg. The bullet leaves the barrel of the rifle at a velocity of 100m/s. If the bullet takes 0.003sec to move through its barrel, calculate the force experienced by the rifle due to its recoil.	3
17	Sita went to the market to buy food grains for her home. On returning home her mother found that the grains were discolored and moist. She returned them back to the vendor. The vendor told her mother that it was due to improper storage of the food grains. I. What kind of qualities were shown by Sita’s mother? II. What could be the control measures to prevent this storage loss?	1 2
18	a. What will happen to dry raisins if we put them in plain water for few hours? Give a reason for your answer. b. What would happen if the same raisins are kept in concentrated salt solution?	2 ½ ½
19	a). While diluting a solution of salt in water, a student by mistake added alcohol. What technique can be employed to get back the alcohol? Give reason to justify your answer. b). How would you prepare 500g of aqueous solution containing 15% mass by mass of sucrose?	2 3
20	a). Explain any two factors which can decrease rate of evaporation. b).Define sublimation. Also explain sublime and sublimate with the help of an example.	2 3
21	(a) Explain Inter-cropping with the help of an example.	2

	(b) What factors should be kept in mind while choosing crops for Inter-cropping? Give reasons to support your answer.	3
22	a) Define acceleration due to gravity. Write its expression. b) What will be the acceleration due to gravity on a planet having 3 times the mass of the earth and radius 2/3 times the radius of earth. Take value of acceleration due to gravity on earth (g) = 10m/s^2 .	2 3
23	a) Derive the equation of motion graphically to show relation between velocity and position. b) A stone is thrown vertically upwards with a speed of 5m/s . How high does the stone rise before returning back to the earth ? (Take $g = 9.8\text{m/s}^2$)	3 2
24	a. Identify the kind of cell shown below. b. Name the part labeled as A and write about it.  c. Name the two types of plastids present in plant cells. Give one function for each type respectively	5

SECTION B

25	Xylem parenchyma helps in (a) Sideways conduction of water (b) Food Storage (c) Both (a) and (b) (d) Transport of food	1
26	Which of the following liquid is not used in preparation of stained temporary mount of onion peel? (a) Glycerin (b) Water (c) Methyl Alcohol (d) Safranin	1
27	Which of the following mixture is not stable? a) Common salt in water b) Alum in water	1

	<p>c) Chalk powder in water d) Sugar in water</p>	
28	<p>A student was preparing a true solution of sugar in water in a beaker. By chance , he added sugar in excess. He however stirred the solution for sometime but still sugar did not dissolve and settled at the bottom of the beaker. He filtered the solution. What will be the nature of the solution?</p> <p>a) True solution b) Colloidal solution c) Suspension d) Saturated solution</p>	1
29	<p>A mixture contains two solids, X and Y. only X sublimes. Both X and Y dissolve in water. A student is asked to separate X and Y. The method he applies is</p> <p>a)Filtration followed by evaporation b) Evaporation only c) Sublimation only d) None of these</p>	1
30	<p>What is not observed when solution of barium chloride and sodium sulphate is mixed?</p> <p>a) White precipitate of barium sulphate is formed b) Precipitate formed is insoluble in the solution c) Sodium Chloride settles down d) Sodium chloride obtained is soluble in the solution.</p>	1
31	<p>Sclerenchyma cells under the microscope can be identified on the basis of</p> <p>(a) Position of nucleus (b) Thickness of Cell wall (c) Size of cells (d) Vacuoles</p>	1
32	<p>Vinay spilled some iodine solution on his yellow cotton shirt and a white table cloth. He observed that the color of stain on his shirt was blue- black but reddish yellow on the table cloth. The scientific reason for his observation will be:</p> <p>(a) Shirt was dyed with Metanil Yellow (b) Shirt was starched after washing (c) Table Cloth was starched (d) Shirt absorbed sweat</p>	1
33	<p>Two opposite forces of same magnitude acting on a body that do not change its state of rest or motion are called</p> <p>(a) Net force (b) Balanced force (c) Unbalanced force (d) Friction force</p>	1

34	<p>A student takes some water in a beaker and heats it over a flame for determining its boiling point. He keeps on taking its temperature readings. He would observe that the temperature of water:</p> <p>a) Keeps on increasing regularly b) keeps on increasing irregularly c) first increases slowly, then decreases rapidly and eventually becomes constant. d) first increases gradually and then becomes constant.</p> <p>Give reason.</p>	2
35	<p>When metal A is placed in dilute sulphuric acid it gives hydrogen gas but metal B, does not give hydrogen when reacted with the acid. From this observation what can be concluded about the reactivity of A and B. Give an example in the form of chemical equation.</p>	2
36	<p>Identify and name the following tissues. Give any two specific features for each on the basis of which they can be identified.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>A</p> </div> <div style="text-align: center;">  <p>B</p> </div> </div>	2