THE VILLAGE
INTERNATIONAL SCHOOL
"We Nurture Dreams"

GRADE: IX Date:11-09-23	TERM I EXAMINATION (2023-24) SCIENCE	Marks: 80 Time: 3h

Q.No.	Questions	Mark
	Section A	
	Choose the correct answer	
1	C	1
2	A	1
3	C	1
4	C	1
5	D	1
6	B	1
7	C	1
8	C	1
9	C	1
10	B	1
11	C	1
12	A	1
13	C	1
14	A	1
15	D	1
16	D	1
17	C	1
18	C	1
19	D	1
20	A	1
	SECTION B	
	VERY SHORT ANSWER QUESTION	
21	Deoxyribonucleic acid and adenosine triphosphate	2
22	Surface area, temperature, humidity, wind speed	2
23	Speed=distance/time velocity=displacement/time SI unit -m/s SI unit =m/s	2
24	Due to the presence of aerenchyma	2

25	suspension is a heterogeneous mixture. size of solute particles in a suspension is quite large. particles of a suspension can be seen easily. suspension is unstable.	2
26	Third law, reduce momentum	2
	Section C **SHORT ANSWER QUESTION**	
27	Phloem is one of the two types of vascular tissue in plants. It transports food formed in the leaves to the other parts of the plants. Sieve tubes, companion cells, phloem fibers, and the phloem parenchyma are the four types of constituents that make up phloem.	3
28	Mass of urea present in solution = 16 g Mass of solution = 120 g Mass percentage = mass of the solute/mass of solution x 100 = 16/120 x 100 =13.33%	3
29	$M_1v_1+m_2v_2=m_1u_1+m_2u_2$ 5v1+50*10-3=0+0 =-0.4 m/s	3
30	ST F=ma	3
31	a. particles of matter have space between them b. particles of matter are continuously moving c. particles of matter attract each other	3
32	Nervous tissue is found in the brain, spinal cord, and nerves. It is responsible for coordinating and controlling many body activities. It stimulates muscle contraction, creates an awareness of the environment, and plays a major role in emotions, memory, and reasoning.	3
33	Homogenous mixture where two or more substances are mixed. • Dilute solution A solution which has a lower concentration of solute. • Concentrated solution A solution which has realtively larger amount of solute • Saturated solution A solution that has dissolved as much solute as it is capable of dissolving and no more solute can be dissolved at a given temperature	3
	SECTION-D LONG ANSWER QUESTIONS.	
34	Features of muscular tissues Elongated cells Also calles as muscle fibres Resposible for movement in our body Contains a special proteins called contractile protein, which Contract and relax to cause movement. • Voluntary muscles	5

Voluntary muscles are the muscles of the body that is attached to bones and control movement of the limbs, head, neck, and body under conscious control

It is also known as skeletal muscles as they are mostly attached to the bones and help in the body movement

- Involuntary muscles

Involuntary muscles are the ones that do not move or contract under the conscious control of a person, i.e., these muscles work automatically.

These muscles line the organs like the urinary bladder, blood vessels, stomach, intestine, etc.

- Cardiac muscles

Also known as heart muscle

They are cylindrical, branched and uninucleated

They have striation

They are involuntary

Created a rythemic contraction and relaxation

35

5

Difference Between True Solutions, Suspensions and Colloidal Solutions

Property	True Solutions	Suspensions	Colloidal Solutions
Particle size	Less than 10^{-9} m	Greater than 10^{-7}m	Between 10 and 10^{-9} m
Visibility of particles	Invisible to naked eye not visible under powerful microscope	Easily visible	Invisible to naked eye. Visible und powerful microscope.
Sedimentation of particles	Do not settle down	Settle down due to gravity	Settle down under high centrifugati
Filtration through filter power	No residue is formed	Residue is formed	No residue formed

36

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Action and reaction,
third law of motion
After and before collision total momentum is conserved

Derive : $M_1v_1+m_2v_2=m_1u_1+m_2u_2$

	SECTION - E **CASE-BASED/DATA -BASED QUESTIONS**	
37	a) When dry apricots are left in pure water, they swell up. b) If plasma membrane of a cell breaks down, all the protoplasmic materials including cells organelles will come out of the cell resulting in their non-functioning and hence death of the cell. c) If Golgi apparatus is removed from the cell, modification, sorting and packaging of materials coming from ER or synthesised in the Golgi apparatus itself, will not take place. Other functions carried out by the Golgi apparatus such as synthesis of complex sugars, formation of lysosomes, membrane biognesis etc. will also not take place, resulting in non-functioning and hence death of the cell. d) There wont be any kind of life forms because chlorophyll present inside the chloroplast is responsible for doing photosynthesis. If chloroplast is absent photosynthesis doesn't take place and oxygen wont be released	4
38	a)Mixture of common salt and water. Mixture of milk and water. b) Mixtures of chalk powder with water and milk with water. c) Mixture of common salt and water. d) Mixture of chalk powder and water. e) Mixture of chalk powder and water.	4
39	(a)d (b)c (c)a (d)c	4
	The end	