

SET-A

M.M. :60

Time: 2 hrs 20 min. General Instructions: - All questions are compulsory.

Q.N.	Questions	Marks
1.	To survive plant roots need -	1
	a) CO2b) Chlorophyllc) O2d) Sunlight	
2.	Name the evergreen coniferous tree that reaches height from 40m to 50m.	1
	a) Deodar b) Ashoka c) d) Sal	
3.	The process of raw and dyed fibres twisted together to make thread:	1
	a) Shearing b) Scouring c) Sorting d) Spinning	
4.	Lion Tailed Macaque gets its name from:	1
	a) Its roar like a lion b) The colour of its fur	
	c) The tassel at the end of its tail d) Its eating habits	
5.	A fuse wire is a wire of -	1
	a) High resistivity and Low melting point	
	b) High resistivity and High melting point	
	c) Low resistivity and Low melting point	
	d) Low resistivity and High melting point	
6.	Which of the following is an insectivorous plant?	1
	a) Pitcher plant b) leguminous plant c) Green Plant d) Amarbel	
7.	Rhizobium bacteria help leguminous plants by converting atmospheric:	1
	a) Oxygenb) Nitrogenc) Carbon Dioxided) Hydrogen	
8.	Aerobics respiration taken place in-	1
0	a) Presence of O_2 b) Presence of CO_2 c) Absence of O_2 d) Absence of CO_2	1
9.	Water management is primarily done by	1
	a) Government Bodies b) Non-Profit Organisation	
10	c) Private Organisation d) Civics Agencies	1
10.	Prawns respire through their	1
	a) Lungsb) Gillsc) Trachead) Skin	
	Q no 11,12 are assertion reason questions	
	a) Both Assertion and Reasoning are true, and Reasoning is the correct explanation of	
	Assertion.	
	b) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation of Assertion.	
	c) Assertion is true, but Reasoning is false.	
	d) Both Assertion and Reasoning are false.	
11.	Assertion: Photosynthesis rate is greater than respiration rate	1
11.	Reasoning: CO_2 taken in and O_2 gives out.	1
12.	Assertion: The canopy layer of the forest receives the most sunlight.	1
12.	Reasoning : The canopy layer consists of the tops of tall trees that form a dense cover,	1
	allowing limited sunlight to reach the lower layers.	
13.	Mention any two adaptive features of Polar Beers help it to survive in frigid zone.	2
<u>13.</u> 14.	Explain the relationship between the shapes of tree crown and their geographical	2
17.	location on earth.	<i>–</i>
15.	State any two precautions that can help avoid the "choking of Drains"	2
	Differentiate between Reeling and Dying.	2
<u>16.</u> 17.		2 1+1
1/.	a) The leaf is called food factory of plant due to its role in photosynthesis. Explain its functions in this process.	1+1

	b) Describe the concept of extracellular digestion.	
18.	Name any two situations where electric fuses come into play.	2
19.	Name three types of secretions help in digestion of food in human and also explain	3
20.	their functions? Label the diagram	3
20.	Laber the diagram	
	Electric bell	
21.	Describe the following terms	3
22	a) Water table b) precipitation c) Meteorology	2
22.	Describe the ways forest contribute to maintaining ecological balance s, supporting economics and protecting environment.	3
23.	Give the reason of following	3
23.	a) Some monkeys have long prehensile tails.	5
	b) Toco Toucan have large beak.	
	c) Big cats have sharp teeth.	
24.	a) Discuss the benefits and drawback of heating effect of current.	3
	b) Draw the symbol used to represents an electric switch.(ON and OFF position)	
25.	Read the paragraph and answer the following	4
26.	 In a serene freshwater lake, students conducted an experiment to explore the process of respiration in aquatic animals, focusing on fish. They aimed to understand how fish extract oxygen from water to survive and how factors like temperature and water quality can impact their respiration rates. a) What is respiration? b) Specify the two additional by-products, apart from energy, that are released during the process of respiration. c) List any two applications of the anaerobic respiration. d) Which gas is responsible for change in the colour of lime water. Read the paragraph and answer the following Questions: Temperature, in such regions, has an average value of 20-25°C and varies little 	4
	throughout the year. The average temperatures, of the three warmest, and the three coldest months, do not differ by more than 5°C. In India, these forests are found in	
	Western Ghats and Assam. These forests are home to animals like monkeys, apes,	
	gorillas, lions, tigers, lizards, elephants, leopards etc.	
	a) Why do tropical forests have a large population of animals?b) Write one adaptive feature of red eved faces	
	b) Write one adaptive feature of red eyed frogs.	
	c) Name the largest rainforest of the world.d) How do monkeys adapt themselves in these forests?	
27.	d) How do monkeys adapt themselves in these forests?State the various process involved in the nutrition of ruminant through a diagram.	5
27. 28.	a) Describe an activity to show that exhaled air contains CO₂	5 2+3
<i>2</i> 0.	b) Describe the changes takes place	2+3
	i) Around the ribcages ii) Diaphragm iii) Chest cavity during inspiration	



SET-B

M.M. :60

Time: 2 hrs 20 min.

Ceneral Instructions: - All questions are compulsory	
	Marks
	1
	1
	1
	_
, , , ,	1
a) Shearing b) Scouring c) Sorting d) Spinning	
The average weather of a place taken over a long period of 20-25 years	1
a) Climate b) temperature c) wind d) Humidity	
A filament is a wire of-	1
a) High resistivity and Low melting point	
	1
	1
	1
	1
	1
	1
	1
	1
Assertion.	
b) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation	
of Assertion.	
c) Assertion is true, but Reasoning is false.	
d) Both Assertion and Reasoning are false.	
Assertion: Photosynthesis rate is equals to respiration rate	1
Reasoning : There is no net intake or release of either CO ₂ or O ₂ .	
	1
	2
Analyse the multifunctional roles of an elephant's trunk in its daily activities and survival	2
strategies. (Any Two)	
State any two ways of saving water at home.	2
Differentiate between Sheering and Scouring.	2
5 6	
Explain the biochemical process responsible for sweet taste that develops when chewing	2
	The process of removing fleece along with a very thin layer of dead skin of sheep a) Shearing b) Scouring c) Sorting d) Spinning The average weather of a place taken over a long period of 20-25 years a) Climate b) temperature c) wind d) Humidity A filament is a wire of- a) High resistivity and Low melting point b) High resistivity and Low melting point c) Low resistivity and High melting point d) Bread Mould Changes take place in rib cages during inhalation a) Moves Upward and Outward b) Moves Downward and Inward c) Moves Upward and Inward d) Moves Downward and Outward One of the important factors that lead to a scarcity of water is- a) Excessive rain fall b) afforestation During anaerobic respiration in absence of oxygen which substance is produced a) Lactic acid b) Glucose c) water d) CO ₂ Crabs respire through their- a) Lungs b) Gills c) Trachea d) Skin Q no 11,12 are assertion reason questions a) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation of Assertion. b) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation of Assertion: Photosynthesis rate is equals to respiration rate Reasoning: There is no net intake or release of either CO ₂ or O ₂ . Assertion: Photosynthesis rate is equals to respiration rate Reasoning: There is no net intake or release of either CO ₂ or O ₂ . Assertion and presory layer consists of the tops of tall trees that form a dense cover, allowing limited sunlight to reach the lower layers. Mention any two adaptive features of Penguins help it to survive in frigid zone. Analyse the multifunctional roles of an elephant's trunk in its daily activities and survival strategies. (Any Two)

18.	Describe the role of hydrochloric acid and mucus in stomach.	2
19.	a) Discuss the benefits and drawback of heating effect of current.	3
	b) Draw the symbol used to represents a Plug Key (On and Off position).	
20.	Label the diagram	3
21.	Describe the following termsa) Windb) Sewage Systemc) Humidity	3
22.	Briefly describe the likely consequences of indiscriminately cutting down of trees.	3
23.	Give the reason of following	3
	a) Polar bears have white fur.	
	b) Red eyed Frog have sucker pads.	
	c) Lion tailed macaque have cheeks pouches	
24.	Name three types of secretions help in digestion of food in human and also explain their	3
	functions?	
25.	Read the paragraph and answer the following	4
	In a serene freshwater lake, students conducted an experiment to explore the process of	
	respiration in aquatic animals, focusing on fish. They aimed to understand how fish extract	
	oxygen from water to survive and how factors like temperature and water quality can	
	impact their respiration rates.	
	a) What is respiration?	
	b) Specify the two additional by-products, apart from energy, that are released during the process of respiration.	
	c) List any two applications of the anaerobic respiration.	
	d) Which gas is responsible for change in the colour of lime water	
26.	Read the paragraph and answer the following	4
	In a science fair, a group of enthusiastic seventh-grade students presented an experiment	
	that demonstrated the fascinating world of electromagnets and their real- world	
	applications. Their project aimed to showcase how electromagnets work and how they	
	can be used in various devices.	
	a) What is an electromagnet, and how does it differ from a permanent magnet?	
	b) How does the number of wire coils affect the strength of the electromagnet?	
	c) Can you think of any real-life devices or applications that use electromagnets? Any 2	
27	d) On which effect of current MCB works?	5
27.	Explain the ingestion and egestion of food in amoeba through a diagram.	5
28.	a) Describe the activity to show that respiration produces head energy.	2+3
	b) Describe the Life Cycle of Silk Moth and also name the two leading countries in global	
	silk production.	



SET-A

M.M. :60

Time: 2 Hrs 20 Minutes General Instructions: -

I. All questions are compulsory.

Q.N.	Questions	Marks
1.	To survive plant roots need -a) CO2b) Chlorophyllc) O2d) Sunlight	1
2.	Name the evergreen coniferous tree that reaches height from 40m to 50m.a) Deodarb) Ashokac)d) Sal	1
3.	The process of raw and dyed fibres twisted together to make thread:a) Shearingb) Scouringc) Sortingd) Spinning	1
4.	Lion Tailed Macaque gets its name from:a) Its roar like a lionb) The colour of its furc) The tassel at the end of its taild) Its eating habits	1
5.	 A fuse wire is a wire of - a) High resistivity and Low melting point b) High resistivity and High melting point c) Low resistivity and Low melting point d) Low resistivity and High melting point 	1
6.	Which of the following is an insectivorous plant?a) Pitcher plantb) leguminous plantc) Green Plantd) Amarbel	1
7.	Rhizobium bacteria help leguminous plants by converting atmospheric:a) Oxygenb) Nitrogenc) Carbon Dioxided) Hydrogen	1
8.	 Aerobics respiration taken place in- a) Presence of O₂ b) Presence of CO₂ c) Absence of O₂ d) Absence of CO₂ 	1
9.	 Water management is primarily done by a) Government Bodies b) Non-Profit Organisation c) Private Organisation d) Civic Agencies 	1
10.	Prawns respire through their a) Lungs b) Gills c) Trachea d) Skin	1
11.	 Assertion: Photosynthesis rate is greater than respiration rate during day time Reasoning: CO₂ taken in and O₂ gives out Options: a) Both Assertion and Reasoning are true, and Reasoning is the correct explanation of Assertion. B) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation of Assertion. c) Assertion is true, but Reasoning is false. d) Both Assertion and Reasoning are false. 	1
	Assertion: The canopy layer of the forest receives the most sunlight.	+

	Reasoning : The canopy layer consists of the tops of tall trees that form a dense cover,	
	allowing limited sunlight to reach the lower layers.	
	Options:	
	a) Both Assertion and Reasoning are true, and Reasoning is the correct	
	explanation of Assertion.	
	b) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation	
	of Assertion.	
	c) Assertion is true, but Reasoning is false.	
	d) Both Assertion and Reasoning are false.	
13.	Mention any two adaptive features of Polar Beers help it to survive in frigid zone.	2
	1.Polar bear have white fur so that they are not easily visible in snowy white	
	background	
	2. And insulating layer of blubber keeps them warm in winter	
14.	Explain the relationship between the shapes of tree crown and their geographical	2
	location on earth.	
	1. If a tree is located near the equator the noon time sun is almost directly over	
	the head all the year round. Tall tree with flat tree trops are very common in this	
	part	
	2. Near the Arctic Circle the sun is never directly overhead and is usually quite	
	low in the sky. Trees in this part of the word tend to be cone shaped	
15		
15.	State any two precautions that can help avoid the "choking of Drains"	2
	Do not throw solid like leftover food, leaves, cotton ,polythene bags etc in the	
	drain	
16.	Differentiate between Reeling and Dyeing.	2
	Reeling -the process of taking outside thread from the cocoon	
	Dyeing -the process of adding colour to the fibre	
17.	a) The leaf is called food factory of plant due to its role in photosynthesis. Explain its	1+1
	functions in this process.	
	Leaves have a green colour pigment called chlorophyll it helps leaves to capture	
	the energy of the sunlight is energy is used by the plant to synthesize their food	
	b) Describe the concept of extracellular digestion.	
	The food gets digested outside the cell or sometimes even outside the body of the	
10	organism this type of digestion is called extracellular digestion	2
18.	Name any two situations where electric fuses come into play.	2
	1. Short circuiting	
	2 .insulation breakdown	
19.	Name three types of secretions help in digestion of food in human and also explain	3
	their functions?	
	1. Secretion from liver-bile juice help in digestion of fat	
	2. Secretion from pancreas- pancreatic juice helps in digestion of the	
	carbohydrates protein and fats	
	3. Secretion from small intestine-intestinal juice helps in digestion of	
	carbohydrates proteins and fats	
20.	Label the diagram	3
<i>2</i> 0.		5

	Electric bell Refer to page no 6.	
21.	Describe the following terms a)Water table-the upper there of groundwater is called water table	3
	b) precipitation-precipitation is produced when the droplets and the crystal incloud grow large enough to fall on to the ground	
	c) Meteorology-it is the branch of science which deals with whether and weather forecasting	
22.	Describe the ways forest contribute to maintaining ecological balance , supporting economics and protecting environment. Maintaining the ecological balance-forest maintain and improve the moisture content of that mosphere Supporting economics-forest are the most important source of timber and raw material for paper industries Protecting environment-forest are the habitat of living organisms	3
23.	Give the reason of following1.Some monkeys have long prehensile tails. For grasping branches2.Toco Toucan have large beak. Help in picking the fruit3.Big cats have sharp teeth. To tear the flesh	3
24.	Discuss the benefits and drawback of heating effect of current. Benefits of heating effect of current-electric geyser ,electric iron etc Drawbacks of heating effect of current-unwanted loss of electric current b) Draw the symbol used to represents an electric switch.(ON and OFF position) Refer to page number 248	3
25.	 Read the paragraph and answer the following In a serene freshwater lake, students conducted an experiment to explore the process of respiration in aquatic animals, focusing on fish. They aimed to understand how fish extract oxygen from water to survive and how factors like temperature and water quality can impact their respiration rates. a) What is respiration? The process in which organisms convert sugar into biochemical energy using oxygen b) Specify the two additional by-products, apart from energy, that are released during the process of Respiration water and carbon dioxide 	4

r	1	1
	c) List any two applications of the anaerobic respiration. Formation of idli ,dosa	
	alcoholic beverages, cake, pastry etc	
	d) Which gas is responsible for change in the colour of lime water. Carbon dioxide	
26.	Read the paragraph and answer the following Questions:	4
	Temperature, in such regions, has an average value of 20-25°C and varies little	
	throughout the year. The average temperatures, of the three warmest, and the three	
	coldest months, do not differ by more than 5°C. In India, these forests are found in	
	Western Ghats and Assam. These forests are home to animals like monkeys, apes,	
	gorillas, lions, tigers, lizards, elephants, leopards etc.	
	a) Whytemperaturel forests have a large population of animals? Because of the thick	
	vegetation and moderate temperature	
	b) Write one adaptive feature of red eyed frogs. Sucker pads	
	c) Name the largest rainforest of the world. Amazon	
	d) How do monkeys adapt themselves in these forests? Long prehensile tails	
27.	State the various process involved in the nutrition of ruminant through a diagram.	5
	Refer to page number 23 and 24	
28.	a) Describe an activity to show that exhaled air contains CO_2	2+3
	Take a drinking straw and a test tube containing pressure prepared lime	
	waterplace one and of the stroke in the lime water and blow the exhaled air	
	gently at the other end of the stroke the observe lime water turns milky due to	
	the presence of carbon dioxide in exhaled air	
	b) Describe the changes takes place	
	i. Around the ribcages muscles around the rib cage contract lifting the	
	ribs upward and outward	
	ii. Diaphragm lowering the dome of diaphragm it form nearly flat sheet	
	ii. Diaphragm lowering the dome of diaphragm it form nearly flat sheetiii. Chest cavity during inspiration -chest cavity expand	



SET-B

M.M. :60

Time: 2 Hrs 20 Minutes General Instructions: -

I. All questions are compulsory.

Q.N.	Questions	Marks
1.	Respiration helps in a) Locomotionb) Digestionc) Absorptiond) Obtaining Energy	1
2.	Name the tree prized for its beautiful foliage and flowersa) Deodarb) Ashokac) Amaltasd) Sal	1
3.	The process of removing fleece along with a very thin layer of dead skin of sheepa) Shearingb) Scouringc) Sortingd) Spinning	1
4.	The average weather of a place taken over a long period of 20-25 yearsa) Climateb) temperaturec) windd) Humidity	1
5.	 A filament is a wire of- a) High resistivity and Low melting point b) High resistivity and High melting point c) Low resistivity and Low melting point d) Low resistivity and High melting point 	1
6.	Which of the following does NOT show Saprotrophic nutrition?a) Fungib) Dodderc) mushroomd) Bread Mould	1
7.	 Changes take place in rib cages during inhalation a) Moves Upward and Outward b) Moves Downward and Inward c) Moves Upward and Inward d) Moves Downward and Outward 	1
8.	One of the important factors that lead to a scarcity of water is- a) Excessive rain fall b) afforestation c) processing of sea water d) deforestation	1
9.	During anaerobic respiration in absence of oxygen which substance is produceda)Lactic acidb) Glucosec) waterd) CO2	1
10.	Crabs respire through their- a) Lungsb) Gillsc) Trachead) Skin	1
11.	 Assertion: Photosynthesis rate is equals to respiration rate during day time Reasoning: There is no net intake or release of either CO₂ or O₂ Options: a) Both Assertion and Reasoning are true, and Reasoning is the correct explanation of Assertion. b) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation of Assertion. c) Assertion is true, but Reasoning is false. 	1

 Reasoning: The understor cover, allowing limited sur <u>Options:</u> a) Both Assertion and Re of Assertion. 	y layer of the forest receives the most sunlight. y layer consists of the tops of tall trees that form a dense nlight to reach the lower layers. asoning are true, and Reasoning is the correct explanation asoning are true, but Reasoning is not the sertion. Leasoning is false.	1
 Reasoning: The understor cover, allowing limited sur <u>Options:</u> a) Both Assertion and Re of Assertion. b) Both Assertion and Re correct explanation of Ass 	y layer consists of the tops of tall trees that form a dense nlight to reach the lower layers. asoning are true, and Reasoning is the correct explanation asoning are true, but Reasoning is not the sertion. Reasoning is false.	
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 <u>Options:</u> a) Both Assertion and Re of Assertion. b) Both Assertion and Re correct explanation of As 	asoning are true, and Reasoning is the correct explanation asoning are true, but Reasoning is not the sertion. Leasoning is false.	
of Assertion. b) Both Assertion and Re correct explanation of As	asoning are true, but Reasoning is not the sertion. Reasoning is false.	
b) Both Assertion and Re correct explanation of As	sertion. Leasoning is false.	
correct explanation of As	sertion. Leasoning is false.	
	easoning is false.	
c) Assertion is true, but R		
d) Both Assertion and R		
13. Mention any two adaptive	features of Penguins help it to survive in frigid zone.	2
Peddle like feet and strea	mline body helps the penguin to swim under the water	
14. Analyse the multifunction	al roles of an elephant's trunk in its daily activities and	2
survival strategies. (Any T	,	
_	to drink water and sprinkle the water to all over their	
body		
—	for grasping low growing shrubs and other food	
materials		
15. State any two ways of sav	•	2
1.Get the leaking taps re		
2.Turn off the tap while	· · · · · · · · · · · · · · · · · · ·	
16. Differentiate between She		2
	removal of the fleece from the animal	
	eared wool in hot water and detergent .	2
	rocess responsible for sweet taste that develops when	2
chewing rice or bread for a		
	ive juices that break down starch to form sugar hence a	
	chewed for sometime taste sweet	
	chloric acid and mucus in stomach.	2
	e bacteria present in the food	
Mucus protect the inner		3
	s and drawback of heating effect of current.	3
	g effect of current-electric geyser ,electric iron etc	
Drawbacks of hea	ting effect of current-unwanted loss of electric energy	
b) Draw the symbol u	sed to represents a Plug Key (On and Off position) refer to	
the page number		
20. Label the diagram refer to	the page number 17	3

21.	Describe the following terms a) Wind horizontal movement of air b) Sewerage System -network of pipes brings clean water to our home and network of pipes take the wastewater or sewage away	3
22. 23.	 c) Humidity-the amount of water vapours present in the atmosphere Briefly describe the likely consequences of indiscriminately cutting down of trees. Give the reason of following 	3 3
	 a) Polar bears have white fur. Protect them from winter b) Red eyed Frog have sucker pads. Helps them to provide the better traction on the wet leaves and branches c) Lion tailed macaque have cheeks pouches for storing food 	
24.3	Name three types of secretions help in digestion of food in human and also explain their functions? 1.Secretion from liver-bile juice help in digestion of fat 2.Secretion from pancreas- pancreatic juice helps in digestion of the carbohydrates protein and fats 3.Secretion from small intestine-intestinal juice helps in digestion of carbohydrates proteins and fats	3
25.	 Read the paragraph and answer the following In a serene freshwater lake, students conducted an experiment to explore the process of respiration in aquatic animals, focusing on fish. They aimed to understand how fish extract oxygen from water to survive and how factors like temperature and water quality can impact their respiration rates. a) What is respiration? The process in which organisms convert sugar into biochemical energy using oxygen b) Specify the two additional by-products, apart from energy, that are released during the process of Respiration water and carbon dioxide 	4

	c) List any two applications of the anaerobic respiration. Formation of idli ,dosa	
	alcoholic beverages, cake, pastry etc	
	d) Which gas is responsible for change in the colour of lime water. Carbon dioxide	
26.	Read the paragraph and answer the following	4
20.	In a science fair, a group of enthusiastic seventh-grade students presented an	-
	experiment that demonstrated the fascinating world of electromagnets and their	
	real- world applications. Their project aimed to showcase how electromagnets	
	work and how they can be used in various devices.	
	a) What is an electromagnet, and how does it differ from a permanent magnet?	
	Electromagnet is the temporary magnet that runs on electricity. It is	
	different from permanent magnet as it works on electricity when the	
	switch is on it behaves like a magnet or when the switch is of it will lose its	
	magnetism	
	b) How does the number of wire coils affect the strength of the electromagnet? It	
	increase its magnetism	
	c) Can you think of any real-life devices or applications that use electromagnets?	
	(Any 2) Telephone diaphragm, loudspeakers ,electric bells etc	
	d) On which effect of current MCB works? Magnetic effect of current	
	a) On which effect of current MCB works? Magnetic effect of current	
27.	Explain the ingestion and egestion of food in amoeba through a diagram. Refer to the	5
	page number 24	
28.	a) Describe the activity to show that respiration produces head energy. Refer to the	2+3
	page number 105	
	b) Describe the Life Cycle of Silk Moth and also name the two leading countries in	
	global silk production. A female silk moth lays 100 of eggs which are stored at a	
	suitable temperature these eggs hats to produce larva which are caterpillar or	
	silkworm these larva are kept in teen boxes which they feed on fresh mulberry	
	leaves for 25 to 30 days the caterpillar then Secrete a liquid the character figure	
	fine fibre called cocoon.	
	India and China are the two leading countries in global silk production	