I. Questionnaire:

1. Prepare two questions, which you ask the doctor / teacher to know more details about
   i. Nutrition ii. Malnutrition iii. Vitamins deficiency iv.pancreas. v.obesity and its consequences
2. If you have a chance to meet pul monologist , what questions will you ask about the pulmonary respiration.
3. List out few preventive measures to your friend for protecting lungs from infections.
4. Prepare a questionnaire to know how to keep respiratory organ healthy?
5. Prepare two questions, which you ask the doctor to know more details about
   i. High blood pressure ii. Heart attack iii. 'blood clotting' iv.lymphatic system?
6. Prepare four questions to find the reasons for obstructions in excretory system?
7. Prepare a questionnaire to know how to keep kidneys healthy?
8. What questions would you like to ask to teacher / doctor regarding the kidney?
9. Why doctors advise us to go for a blood and urine tests for diagnosis of any disease?
10. To keep your kidneys healthy for long period , what questions will you ask a nephrologist / Urologist.
11. What questions would you ask to your doctor to know about kidney transplantation?
12. What questions do you ask on 'synapse' to your teacher, to know more about it ?
13. Write any two questions to conduct a quiz programme on hormones.
14. Write any two questions that you will ask your teacher about the Alkaloids.

II. Differences

1. Aerobic and anaerobic 2.Respiration and combustion 3.Arteries and veins
4. Photosynthesis and respiration 5.Inspiration and expiration 6.autotrophic and heterotrophic
7. Anabolism and catabolism with suitable examples. 8. Ingestion and digestion?
9. Single and double circulation. 10.Systole and diastole 11.Lymph and blood.
12.Open circulatory system and closed circulatory system 13.'Chlorophyll and Hemoglobin'
14.Asexual and sexual reproduction? 15. Mitosis and meiosis . 16. Artries and veins.

III. Think and Answer the following questions.

1. What happens if there is no mucus in the Oesophagus? 3. What juice contains no enzymes?
2. Why do we feel bilious or liverish? 4. Name the enzyme which acts on carbohydrates, proteins and fats?
5. What is the role of acid in stomach? 6. What happens if the food we eat is not balanced diet?
7. If you visit a doctor what doubts you would like to clarify about pancreas.
8. How the marasmus disease is caused? Mention its symptoms?
9. What is obesity? How it cause. Write its health hazard?
10. How are fats digested? Where do they get digested.(Emulsification)
11. What is the role of acid in stomach and roughages in alimentary canal?
12. What do you think that would happen if the salivary glands did not function in our mouth?
13. Suggest some precautions to avoid cardiac problems. (OR)
    What changes would you like to bring in your life style to avoid cardiac problems?
14. After reading the functions of lymphatic system, what precautions you would suggest to your elders about Edema?
15. Why doctors advise us to go for a blood and urine tests for diagnosis of any disease?
16. Why right side kidney is situated slightly lower than left side kidney in humans?
17. What would happen if insulin production stops?
18. In which experiment we add diazene green solution.Why.
19. Almost all the living world depends on plants for their survival .Justify.
20. What happens if plants do not perform photosynthesis?
21. What is the role of KOH in Molhs Half leaf experiment?
23. What happens if there is no diaphragm in human. 24. What happens if there is no valves in veins.
25. What happens if both kidneys fail completely in human beings?

27. What suggestions do you give to your friend suffering from constipation?
28. Which disease occurs in child when there is an immediate second pregnancy or repeated child births in a mother?
29. Give two examples for nutritional deficiency diseases.
30. Name the vitamin which is synthesized by the bacteria present in the human intestine.
31. Which vitamin deficiency causes Rickets? What are its symptoms?
32. What would happen if there is no epiglottis in your body.
33. In some people blood does not coagulate. Give the reasons for it.
34. What happens if blood does not clot?
35. What happens if there are no valves in the Heart?
36. What happens, if trachea is not moist?
37. Why do we feel warm after a vigorous exercise?
38. What would happen, if yeast and sugar solution are left to stand without O_2 for some days?
39. What happens, if stomata is not present or it is painted?
40. What happens if blood platelets are absent in blood?
41. In which experiment we add diazene green solution. Why.
42. Almost all the living world depends on plants for their survival .Justify.
43. What happens if plants do not perform photosynthesis?
44. What happens if there is no mucus in Oesophagus.
45. What do you think would happen if haemoglobin is absent in the RBC.
46. Why did you add diazene green solution in the experiment anaerobic respiration. What change you observed after adding the solution.
47. What would happen if nasal cavity and pharynx are not moist?
48. What precautions would you suggest to your elders about 'Edima' in journey ?
49. What suggestions do you give to prevent heart attack?
50. What food and life style do you suggest to avoid obesity?
51. What would happen if harmful materials are not removed from the body?
52. How do the reflexes saves us from danger or accidents in our daily life?
53. How do you avoid problems related to digestion?
54. What suggestions do you give to overcome malnutrition in children?
55. What do you think would happen if cartilagenous rings are not present in trachea?
56. What happens if all the functions of human body are controlled by brain?
58. Which gas is absorbed by KOH solution ?
59. Write any two sentences to appreciate about the photosynthesis in plants?
60. What would happen if hemoglobin is not present in our blood?
61. What healthy habits you would like to follow to keep your digestive system in good condition?
62. What will happen if there is no feedback mechanism in our body?
63. How do you appreciate the role of reflex actions in saving us from accidents?
64. Write two suggestions that you would give to a person whose both the kidneys stop working completely.
3. What will happen if pollutants enter into the lake ecosystem?
65. What will happen if moisture and hairs are absent in the nasal cavity of human being?
66. Name any four secondary metabolites that are used in daily life and write their uses.
67. What happens, if there is no peristaltic movement in Oesophagus?
68. Write two voluntary functions and two involuntary functions you have observed in your body.
69. How can we say that Photosynthesis is the basic energy source for the living world?
70. Name the food material on which trypsin acts and name the end products.
71. Explain two tropic movements with suitable examples.

2. What will you do to overcome the scarcity of water in everyday life?

11. What happens if there is no evolution?

5. Write any three suggestions to create awareness in your locality on ground water conservation.

12.Suggest four measures to conserve fossil fuels.

11. What will happen, if Islets of langerhans fail to function ?

What are the ill effects of obesity? Why should we avoid junk food?

Give any two suggestions to create awareness to stop female foeticide.

Write two precautions you take, while observing Rhizopus in the laboratory.

"We can't imagine the world without insects and birds". Suggest two methods to conserve them.

1. Give two examples of plants that are propagated by the cutting method:

1. Write two examples for non-renewable resources.

5. Explain any two artificial propagation methods you observed in daily life with examples.

2. Name two fossil fuels that are used in daily life.

SLOGANS

5. Write any two slogans to bring awareness about 'ill effects of smoking on lungs.

2. Write two slogans on organ donation.

2. Prepare any two slogans to motivate people towards sustainable development.

2.Write any two slogans for campaign to eradicate protein-calorie malnutrition.

10. Write any four slogans for propaganda against female foeticide.

7. Prepare the slogans to create awareness on good health and balanced diet, keeping view the aspect of digestion?

26. Write two slogans for campaign on Mal-nutrition.

S.No	Vitamin	Resources	Deficiency diseases	Symptoms
1	Thiamin B_1	Cereals, oil seeds, vegetables, milk, meat, fish, eggs.	Beri Beri	Vomtings , fits , difficulty in breathing , paralysis
2	*Ascorbic acid C*	*Green leafy vegetables , citrus fruits , sprouts*	*Scurvy*	*Delay in healing of wounds , fractures in bones*
3	*Calciferol D*	*Liver , shark liver oil , morning sun rays*	*Rickets*	Improper formation of bones ,Knock knees delayed dentination
4	*Tocoferol E*	*vegetables , fruits , sprouts*	*Fertility related disorders*	Sterlity in males , abortions in females
5	Cyanocoba Lamine B_{12}	Synthesized by bacteria present in the intestine	Pernicious anaemia	Lean and weak , less appetite
6	Retinol A	Carrot , egg , liver , milk , cod liver oil	Eye , skin	Night blindness , scaly skin

Observe the below table and answer the following questions.

1. Classify fat soluble and water soluble vitamins in the above table.
2. Which vitamins deficiency causes in a proper formation of bones.
3. Name the vitamin which we get from morning sunrays. 4. What is the chemical name of vitamin A.?
5. Rangayya is having wound , which is not healing. What might be the vitamin deficient in him?

S.No	Endocrinal gland	Location	Harmone secreted	Response of body to harmone
1	Pituitary	Floor of brain	Somatotropin Luteinising	Growth of bones In males secretion of testosterone, Development of corpus

			hormone Vasopressin	leteum. Regulate absorption of water from the kidney tubules.
2	Thyroid	Neck	Thyroxine	General growth rate and metabolic activity.
3	Adernal	Attached to kidneys	Aderenalin	Increase in heart beat rate dialation of coronary artery. Dialation of pupil of the eye.
4	Pancreas	Near duodenum	Insulin Glucagon	Decrease glucose percentage in blood. Increase glucose percentage in blood.

1. Which gland is known as the master of glands? 2. Which hormone is responsible for Diabetes Mellitus?
3. What re the chemical substances released by Endocrinal glands. 4. What are endocrine glands?
5. What is the hormone responsible for general growth rate? 6. Name the hormone which is responsible for anger.
7. Name the gland located in the human neck. 8.Deficiency of which hormone results in diabetis milletus

S.No	Gland	Enzymes /Substances secreted	Area	Reactive	Products
1	Digestive gland	Tyaline	Buccal cavity	Carbohydrates	Maltose , Sugar
2	Stomach	Pepsin	Stomach	Protiens	Peptones
3	Liver	Bile	Deodinum	lipids	Lipids emulsification
4	Pancreas	Amylase	Deodinum	Carbohydrates	Maltose , Sugar
5	Pancreas	Lipase	Deodinum	Proteins	Peptones
6	Deodenal (bruner glands)		Deodinum	Lipids	Fatty acids
7	Small intestine	sucrase	Small intestine	sucrase	Glucose

1. Write the places where the digestion of carbohydrates takes place.
2. Which enzymes reacts on proteins and what are the products formed.
3. Which glands releases which digestive secretions in the deodinum.
4. Name the part of digestive tract the glucose produced from food.

S.No	Enzyme/Substance	Secreted by	Secreted into	Digestive juice	Acts on	Products
1	Ptyalin (salivary amylase)	Salivary glands	Buccal cavity	Saliva	Carbohydrates	Maltose
2	Pepsin	Gastric glands	Stomach	Gastric juice	Proteins	Peptones
3	Bile (No enzymes)	Liver	Duodenum	Bile juice	Fats	Emulsification breaking down of large fats into small globules
4	Amylase	Pancreas	Duodenum	Pancreatic juice	Carbohydrates	Maltose
5	Trypsin	Pancreas	Duodenum	Pancreatic juice	Proteins	Peptones
6	Lipase	Pancreas	Duodenum	Pancreatic juice	Fats	Fatty acids and glycerol
7	Peptidases	Intestinal glands	Small Intestine	Intestinal juice	Peptides	Amino acids
8	Sucrase	Intestinal glands	Small Intestine	Intestinal juice	Sucrose (Cane Sugar)	Glucose

1. Mention the glands that are involved in digestion process. 2. Write the enzyme present in pancreatic juice.
3. What would happen if bile juice is not produced by the liver? 4. What are the enzymes that act on proteins?
5. You drink the sugar cane juice , what would be formed after its digestion.
6. Name the enzymes which act on carbohydrates? 7. Which juice contains no enzymes?
8. What are the end products of fats? 9. Name the enzymes which act on carbohydrates?
10. The digestive juice which do not contain any enzyme.
11. What are the enzymes that are helpful to digest proteins?

S.No	Gland	Enzymes	Digestive juice	Reactive	Products
1	Salivary gland	Ptyalin	Saliva	Carbohydrates	Maltose , Sugar
2	Gastric gland	Pepsin	Gastric juice	Proteins	Peptones
3	Liver	Bile	Bile juice	Fats	Lipids emulsification
4	Pancreas	Amylase , trypsin , Lipase	Pancreatic juice	Carbohydrates, Proteins , fats	Maltose , peptones , fatty acids glycerol

1. What is the function of bile juice? 2. Which enzyme act on carbohydrate.
3. On which nutrient , pepsin and trypsin act. 4.What is the role of saliva in digestion

S.No	Name of the phylum	Examples	Method of respiration
1	Protozoa	Amoeba	Diffusion
2	Arthropoda	Cockroach Grass hopper	Tracheal respiration
3	Amphibia	Frog	Pulmonary respiration
4	Pisces	Fish	Branchial respiration

1.What do you mean by pulmonary respiration. 2.Name the respiration that occurs in insects.

S.No	Name of the phylum / organism	Excretory system
1	Protozoa	Simple diffusion from body surface into surrounding water
2	Porifera and coelenterates	Water bathes almost all their cells
3	Platyhelminthes and Nematoda	Flame cells
4	Annelids	Nephridia
5	Arthropoda	Green glands , malphigian tubules
6	Mollusca	Meta nephridia
7	Echinodermata	Water vascular system
8	Reptiles , birds , Aves and mammals	Kidneys

1. Name the organelle that helps in removal of waste material in protozoan.
2. In which organisms do you find Meta nephridia? 3. Name the organ that helps in excretion in nematode.
4. What is your observation with reference to evolution of excretion system from table?
5. In the above table which living organisms contains kidneys as excretory organs like human beings.
6. Write the excretory organs present in Earthworm and cockroach.
7. In which organism do you find excretory organ for the first time? 8. How does excretion takes place in amoeba.

S.No	Name of the phylum / organism	Transport system
1	Amoeba	Protoplasm shows natural movements
2	Cnideria	Blind sac like gastro vascular cavity
3	Nemato helmenthes	Pseudocoelom
4	Annelids	Pulsatile vessel
5	Arthropoda	Blood floods the tissue. Oxygen is directly supported to the tissue.
6	Fishes , amphibians ,birds and mammals	Heart

1. Name the phylum which is first Eucoelomate. 2. What do you mean by open circulatory system?
3. What do you call the natural movements you see in amoeba?
4. Which organism do you feel the blood takes the responsibility of delivering the material?

S.No	Name of the phylum / organism	Transport system
1	Protozoa	Brownaian movement
2	Platyhelminthes	Transportation by digestive system
3	Nemathelminthes	Pseudocoelom
4	Annelids	Eucoelomate – Closed circulatory system
5	Arthropodes	Open circulatory system
6	Mollusca , Chordata	Closed circulatory system

1. What do you mean by Brownian movement. 2In which phylum did blood vessels first develop.
3. What is open circulatory system. 4. Name the phylum in which transportation is by digestive system.

S.No	Organ	List -1 Effect of nervous system	List -2 Effect of nervous system
1	Eye	Dialates pupil	Constricts pupil
2	Mouth	Inhibit Salivation	Stimulates salivation
3	Lungs	Relaxes bronchi	Constrict bronchi
4	Heart	Accelerates heart beat	Heart beat normalcy
5	Blood vessel	Increase blood pressure	Decrease blood pressure
6	Pancreas	Inhibits pancreas activities	Stimulates pancreas activity

1. Write two functions of Sympathetic in nervous system 2.What systems constitute Autonomous nervous system?
3. Name two organs that are influenced by Parasympathetic Nervous system.
4. Name the Nervous system mentioned in the table that increases the blood pressure.

S.No	Structure	Location
1	Tricuspid valve	Right auriculo – ventricular aperture
2	Guard cells	Epidermis of leaves

1.Name the structure concerned to the heart.
2.What is the function of a acrosome.

3	Glomerulus	Nephron	3.Name the structures which are helpful for gaseous exchange.
4	Alveoli	Lungs	
5	Acrosome	Above the head of a sperm	4.Name the part performing excretion.

S.No	Component of Reflex arc	Function
1	Receptor	Receives information and generates impulses
2	Sensory (afferent) nerve	Carries information from the receptor to inter neurons in the spinalcord.
3	Inter neurons	Processes the information and generates responses
4	Motor (efferent) nerve	Carries the information from the spinal cord to the effector organ
5.	Effector organ	Receives the information from the efferent neuron and shows the appropriate response

1. What is reflex arc? 2. What is the function of intemeurons?
3. Name the nerve which evolves from the sense organs. 4. Write the important parts of the nerve cell.

S.No	Sympathetic nervous system	Para Sympathetic nervous system
1	Dialates pupil	Constricts pupil
2	Inhibit Salivation	Stimulates salivation
3	Relaxes bronchi	Constrict bronchi
4	Accelerates heart beat	Inhibits heart beat
5	Increase blood pressure	Decrease blood pressure
6	Inhibits pancreas activities	Stimulates pancreas activity
7	Decreases secretion of digestive juices	Increases secretion of digestive juices
8	Relaxes urinary bladder	Contract urinary bladder

1. What does the autonomous nervous system consists of.
2. Which autonomous nervous system relaxes urinary bladder? 3. When is our heart be accelerated.
4. Why do you think our body needs sympathetic and parasympathetic nervous system?

S.No	Alkaloid	Plant	Part	Uses
1	Quinine	Cinchona officinalis (Chinchona)	Bark	Antimalarial drug
2	Nicotine	Nicotiana tobacum (Tobacco)	Leaves	Insecticide
3	Morphine ,Cocaine	Papaver somniferum (Opium)	Fruit	Pain killer
4	Caffeine	Coffea Arabica (Coffee plant)	Seed	Central nervous system stimulant
5	Scopolamine	Datura stramonium	Fruit , flower	Sedative
6	Pyrethroids	Chrysanthemum	Flower	Insecticides

1. Name the alkaloids which are harmful to us. 2. Which parts of the plants are used as alkaloids?
3. Name the plants that gives an alkaloid which is used as sedative.
4. Alkaloid of which plant is used to prevent Malaria. 5. Why do plants shed leaves and bark periodically.

Note : A part from above questions while learning LQA understand and read it sometimes from that questions he may ask VSQA ,SQA and Think and answer it.

L.No.6

In what ways does sexual reproduction differs from asexual one? State at least three reasons.

1. What are the materials required to observe the structure of pollen grains in your school laboratory?

1. Give two examples of plants that are propagated by the cutting method.

Which type of substances are obsorbed by foetus from the mother ?

11. What is the job of the amniotic sac?

12. What are the advantages of sexual reproduction?

13. How does reproduction help in providing stability to population of species?

14. Write the differences between mitosis and meiosis.

15. What happens to the wall of the uterus during menstruation?

16. "All unicellular organisms undergo only mitotic cell division during favourable conditions"- Do you support this statement? Why?

Draw as you see and identify the stages of the cell division.

21. Make a flow chart to show the cell cycle and explain cell division describing different stages of mitosis.

22. Draw neat labelled diagrams of male and female reproductive system of plant.

23. Observe the following part of a flowering plant prepare a note.

24. Prepare a flow chart to explain the process of sexual reproduction in plants.

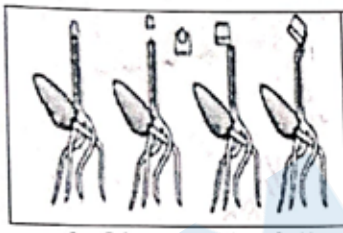
25. Draw a neatly labled diagram to explain plant fertilisation. Write few points on pollen grain.

26. What would be the consequences if there is no meiosis in organisms that reproduce sexually?

27. How will you appreciate cell division that helps in perpetuation of life?

28. What precautions will you take to keep away from various sexually transmitted diseases?

29. Conduct a seminar on child marriages and female foeticide.



(i) Name the scientist who conducted the experiment given in the above picture.
(ii) Which phytohormone was discovered by the above experiment
(iii) Write the effect of the phytohormone identified in the above experiment on pl
(iv) In the above experiment, name the material placed on the cut coleoptile tips of the coat seedling.

6. Observe the following table and answer the questions.

Reproduction system	Organisms
Fission	Paramecium, Bacteria
Budding	Yeast, Hydra
Fragmentation	Flatworms, Spirogyra
Rhizome	Ginger, Turmeric
Cutting	Rose, Hibiscus
Grafting	Citrus, Apple

Questions:
i) Write the names of two organisms that show asexual mode of reproduction ?
ii) What kind of artificial vegetative propagation methods mentioned in the table?
iii) Mention the names of the two plants which undergo natural vegetative propagation ?
iv) In fission, how many organisms can we get from paramecium?

Phase	Description
Prophase	Condense and get coiled Chromosomes split lengthwise to form chromatids Nuclear membrane disappears
Metaphase	Chromosomes move to spindle equator Spindle fibres attach to centromeres
Anaphase	Centromeres split into chromatids Chromatids move towards poles
Telophase	Chromatids elongate and becomes invisible Nuclear membranes form round daughter nucleus Nucleus divides into two and division of cytoplasm starts

i) Write the changes that occur in prophase.
ii) Chromatids move towards poles in which phase?
Chromatids move towards poles in anaphase.
iii) Karyokinesis takes place in which phase?
iv) How many daughter cells are formed at the end of one mitotic division?

Draw and label the human sperm cell.

What happens if there is no diaphragm in human?

Which method do you follow to grow / propagate new hibiscus plant?

What is self pollination.What are the materials required to observe spores in fern leaf.Write the differences between sexual and asexual reproduction.

What would be the consequences if there is no metiosis in organisms that reproduce sexually?

Write the procedure which you follow to prepare the slide of Rhizopus in the laboratory.

Write the differences between mitosis and meiosis.

The reproductive parts of flowering plants are located in the flower.The flower contains sepals,petals , stamens and carpels.The reproductive parts of the flower which possess the sex cells or geory cells called stamens and carpels.Some flowers having either stamens or carpels.

Questions.

i.What are the reproductive parts in the flower. ii.What is the use of petals in the flower.

iii.What do you call the flower with either stamen or carpel.

iv.Do you think that non flowering plants reproduce.

Write the slogans against child marriages and female foetiside.

When does parthenogenesis occur.Write the names of two animals in which parthenogenisis takes place.

Draw the figure of metaphase in mitosis and write about it.

Give 2 examples of plants that are propagated by cutting method.

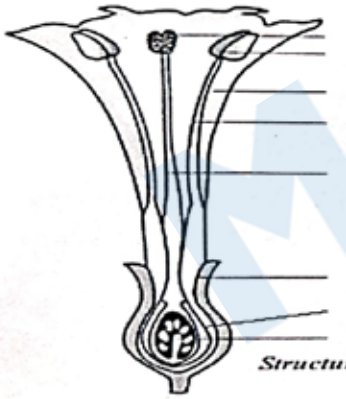
List out the materials you have used to observe the pollen grain in your school lab.

Name of the plant	Mode of propagation
Mango	Grafting
Onion	Bulbs
Rosse , hibiscus	cutting

Read the information in the table and answer the following questions.

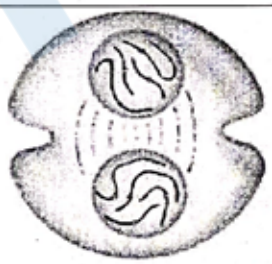
i.Identify the method of reproduction.

ii.Potato does not produce seeds,How do you propagate the potato plants.



Structure of flower

Label the parts shown in the following figure.



Telophase

Which phase of mitiosis is shown in the picture given below?

Identify the stage of a cell division.

L.No.7

2. What would have happened if Islets of Langerhans fail to function?

What are the programmes would you like to suggest to control foeticide?

10. Write any four slogans for propaganda against female foeticide.

2. Prepare any two slogans to motivate people towards sustainable development.

2. What will happen if mucus membrane is not present in stomach?

1. What are the materials required to make a model of how a food bolus moves through the esophagus.

4. Write a short note on the role of Ghrelin and leptin.

8. How can you justify the enteric nervous system as the 'second brain' of the gut?

1. Write the apparatus required for conducting 'Action of Saliva on Starch' experiment?

2. What would happen if nasal cavity and pharynx are not moist?

3. What will happen if there is no mucus in the Oesophagus?
What would happen if nasal cavity and pharynx are not mist? Write about neural apparatus of digestive tract.
What would happen if alimentary canal does not secrete mucus?
Write the experiment you have performed in laboratory to prove the action of salaiva on flour.
Why do we call appendix as a vestigial organ.
What happens if there is no preristaltic movement in oesopahgus.

Type of teeth	Number of teeth in each jaw	Total	Shape	Function
Incisors	4	8	Sharp chisel	Biting and cutting
Cannines	2	4	Sharp and pointed	Tearing and grasping
Premolars	4	8	Flat and wide	Tearing and crushing
Molars	6	12	Wide and rectangular	Chewing and griding

1. How many premolars are there in adults. 2.Which set of teeth help in biting the food.
3. What happens if you lose your molars. 4.Write the dental formula for adult human being.

L.No:-8

Explain the Mendels law of inheritance .Why did he choose pea plant for his experiment.
If the theory of inheritance of acquired charecters proposed by Lamark was true how will the world be.
What happens if there is no evolution.
Write any four pairs of contrasting chareacters chosen by mendel for his study.
Write the differences between Lamarcks and Darwins theories of evolution.
2. What would happen if evolution does not occur?
9. Male is responsible for sex determination of baby. Do you agree?
7. Explain homologous and analogous organs and write how it gives us evidence of evolution.

♀ \ ♂	Y	y
Y	YY	Yy
y	yY	yy

6.When cross is done between pure yellow and pure green pea seed producing plants the following results were obtained.
(Y = yellow ; y = green)Answer the questions given below based on the above table.
(i) Yy - indicates which colour of the seed?
(ii) What is the Phenotypic ratio of the above cross?

L.No.9

6. Write the suggestions you give to farmers to prevent soil pollution.
5. How do you appreciate the process of energy flow in a food chain?
3. Write two suggestions would you give to create awareness on ground water conservation?
3. Write to measures to protect former friendly birds like sparrows:
Write any two slogans to promote awareness among the people about Ecofriendly programs.
What will happen if we remove Frog from the above food chain?
What can we do to save our natural vegetation?
Suggest any two methods of controlling pests which are based on biological principles.
Explain two tropic movements with suitable examples.
Suggest any two methods of controlling pests which are based on biological principles. OR
Suggest one alternative method in place of pesticides to protect crops?
Mention any four effective methods of controlling pests, which are less harmful on environment based on biological principles.
What happens if decomposers are removed from the food web?
How pesticides, herbicides and fungicides are effecting the ecosystem.Explain about Bioaccumalation and Biomagnification with examples.

Do you think one needs laws for distribution of water and its use.Why / why not.

Suggest few measures that you follow to recharge the ground water in your locality.

What is 'niche'?

Prepare two slogans to conserve water

Human being is modifying agriculture lands and lakes into residential areas. What is its effect on Bio-diversity?

Read the information about Kolleru lake in the given table and answer the following questions.

Causes	Area in 1967 (Km^2)	Area In 2004 (Km^2)
Lake-water spread area	70.70	62.65
Lake with sparse weed	0	4 7.45
Lake with dense weed	0	15.20
Lake-liable to flood in rainy season	100.97	0
Aquaculture ponds	0	99.74
Rice fields	8.40	16.62
Encroachment	0.31	1.37
Total	180.38	180.38

a) In which year, lake water spread area is more? Why.

b) Why do you think weeds are more in the lake?

c) Guess the reasons for decrease in the lake area.

d) What measures are to be taken to control pollution in the lake?

e) What are the reasons for decrease in the water area in lake?

L.No.10

3. Write the measures you take to increase ground water level in your surroundings

5. Name 4R's and write any two measures you take to save environment.

5. How do you Apply 4R's in daily life to conserve natural resources:

3. What steps do you take to conserve and protect the natural resources in your locality?

5. Read the given information and answer the questions.

We know some species which existed million years ago, but we may not find them now. They might have extinct and some of them may be found in the form of fossils. For example, we know Dinosaurs the biggest animal on land which were present long time ago but now they are extinct. The scientist got evidences of presence of Dinosaurs like animals in the form of fossils. Palaeontologists determine the age of fossils by using carbon dating method.

i) What are fossils?

ii) Give example for an extinct animal?

iii) Mention the method used to determine the age of fossils?

iv) What is the field of science that deals with fossils?

8. Write about the Kolleru lake case study?

5. Suggest some approaches towards conservation of forests?

3. Suggest any two alternative sources for fossil fuels?

6. Suggest some measures to prevent soil pollution to control the usage of pesticides.

2. What will you do to overcome the scarcity of water in everyday life?

7. Give an account of different natural resources and the means of their conservation?

5. Write any three suggestions to create awareness in your locality on ground water conservation.

3. Suggest any two methods to conserve fossil fuel?

5. Suggest some effective methods of pest control based on the biological principles?

3. Write two suggestions would you give to create awareness on ground water conservation?

2. Name two fossil fuels that are used in daily life:

Explain the role of 4Rs in the conservation of environment?

Recently a new programme was launched in our state known as "Vanam – Manain". Prepare any two slogans to promote the programme.

Why should we conserve forests? Give two reasons. What happens if the forest area decreases rapidly?

What is sustainable development? Is it needful for us? How is it useful in natural resource management?

What happens if we damage a forest resource? What are the results of deforestation?
How do people use the forest resources differently? 8. What are die effects of deforestation?
Why should we conserve forests and wildlife?
Suggest some approaches towards the conservation of forests.
What is the necessity of replenishment of forest? State four reasons.
Forests are renewable resource. Write four sentences supporting this. (OR)
"Forest is a renewable resource". Do you agree? Justify.

SOIL

What is soil erosion? Write two methods of soil conservation.
Suggest any two activities to check soil erosion in your school.
How the soil is important for us? How the soil is importance for us?
4. What are the reasons for depletion of nutrients in soil?
What are the causes for soil erosion? In your opinion what are the causes for soil erosion?

BIODIVERSITY

What is biodiversity? What is the importance of biodiversity? What is the need to protect biodiversity?
What steps you would like to follow on your part to conserve bio-diversity?

Natural RSOURCES ARROUND US

What are examples for natural resources? What happens if we use resources wisely?
What steps do you take to improve natural resources?
Write any four slogans on the conservation of natural resources.
How do people waste natural resources? What is the use of planting Gliricidia on field bunds?
Natural resources are decreased more rapidly. Guess what will be the consequences.
What are the consequences of depletion of natural resources?
What are renewable sources and non-renewable resources?
Write two examples for non-renewable resources Prepare two slogans on 'Save Water' propaganda.
Prepare two slogans on protecting non-renewable resources.
Write two suggestions to create awareness on groundwater conservation.
Suggest any two practices suitable to farmers with less water resources.
To create awareness on "Water conservation" in your locality, what slogan you will suggest?

Fossil fuel

How are fossil fuels produced? What do fossil fuels provide us?
Why do we need to conserve the fossil fuels? Write any two slogans on saving of fossil fuels.
What type of fossil fuels are used in your house? What measures do you take to conserve them?
Encourage people to use solar water heater and solar cooker.
Which plant's seeds are used for the production of bio-fuel?
"Burning fossil fuels is a cause of global warming". Justify this statement?
What steps you take to conserve the biofuels in your daily life?
Use and purchase energy efficient appliances to save bio-fuels.

Village	Type of Farmer	Income per acre on Crops			
		Paddy	Cotton	Mirchi	Maize
A	Small	7,500	9,300	5,200	5,000
	Large	26,700	38,000	16,700	12,900
B	Small	7,200	8,750	4,900	5,100
	Large	32,900	42,000	18,400	13,700'

Observe the above table and answer the following questions.

1. Which crop is most suitable to cultivate for small farmer in both the villages?
2. If you are a large farmer, which

4. Which is the lowest income crop ?
5. Is there any relationship between production of crops and income ? How ?

crop do you select to cultivate?
3. What similarities you have identified in village A and village B?

Village	Type of Farmer	Income per acre on Crops			
		Paddy	Cotton	Mirchi	Maize
Wanaparthy Village – 1	Large	8200	8700	4900	3300
	Small	7046	8490	10899	3110
Vaddicherla Village – 2	Large	10698	5970	4000	3595
	Small	9128	7380	3031	2650

Observe the above table and answer the following questions.

a) Which crop is most profitable for a small farmer in Village – 2?
A:For a small farmer in Village – 2 paddy in Kharif Is more profitable.

b) What is the difference between a small farmer in Village – 1 and Village – 2?
A:Small farmer in village -1 is getting more income than farmer in Village – 2.c) Which crop could replace paddy and the profitable as well for a small farmer in Village – 1?
A:Cotton crop could replaces paddy, it is more profitable than others.
d) Though we know that paddy consumes maximum water, why do you think farmere still like to grow paddy?
A:Though paddy consumes maximum water, farmers believe that it is profitable and less risky. It Is a staple food for people. So they still like to grow paddy.
e) What is the impact of a depleting resource upon the farmers?
Depleting resource increases the cost of production. So the farmers are becoming poor and poor as cost increases and profit or income decreases.
f) Do you think the income of a small farmer in Village – 2 is sufficient enough to meet his expenditure?
A:No, the income of a small farmer in Village – 2 is not sufficient enough to meet his expenditure.
g) What are the major causes of pitiable condition of small farmers at Village – 2?
A:The major causes of pitiable condition of small farmers at Village – 2 are

1. Lack of awareness regarding sustainable use of natural resources like water.
2. Not adopting crops suitable to their conditions.

h) Do you think farming as an occupation is profitable for the small farmer in Village – 2?
A:No. Farming as an occupation is not profitable for the small farmer in Village – 2.
i) Would the farmer have to look for other kind of occupations to meet his needs?
A:No need to look for other kind of occupations to meet their ends, but has to select proper crops that requires less water, proper methods that increase ground water, proper devices to use water discriminately.
j) How did the availability of water affect a small farmer at Village – 2?
A:The availability of water affected the average household income at Village – 2 For them farming is not profitable. As their income is less than the life standards of these people will also be less.

Table 2: Status after five years

Village	Percentage Change in area under irrigation	Percentage decline in number of wells	Percentage change in area under crops					
			Paddy	Paddy	Cotton	Gingelly	All crops	
			K	R			K	R
Village -1	-14	-39	-17	-17	163	86	11	-17
Village – 2	-30	-68	-22	-50	27	138	-05	-50

K stands for Kharif while R stands for Rabi. Negative values indicate loss/ decline, while positive ones show gain/rise.

a) If the number of wells is 155 now, what was it 5 years back ? A:5 years back nearly 215 wells were there.
b) What do you think 'decline in number of wells' represents?
A:Decline in number of wells represents fall of ground water levels due to less rainfall.
c) How would crops be affected due to decline in the number of wells?
A:The crops do not grow well and the yield is less due to decline in the number of wells.

d) Compare table 1 and 2 and state what they tell us about the area under irrigation in both the villages?
A:When compared table 1 and 2 the area under irrigation in Table – 2 is decreased.
e) Which village do you think is more affected? A:Village – 2 is more affected.
f) What is the change in types of crops grown in the villages?

Table-1: Area under irrigation

Village	Total Area (acres)	Percentage Area Irrigated	Number of Wells	Sample Size
Village -1	3791	25%	155	25
Village – 2	2970	15%	175	25

a) What is the total irrigated area in acres, in Village – 1? A:The total irrigated area in Village -1 is 947.75 acres.
b) If one needs to irrigate all the land in Village -1 how many wells would be required?
A:Number of wells required to irrigate all the land in Village -1 are 620.
c) Though the number of wells is less in Village -1, the area under irrigation is more as compared to Village – 2. How is this possible?
A:The area under irrigation is more in Village -1 when compared to Village – 2 because the farmers in Village – 1 use water resource jointly and follow micro irrigation techniques.
d) Do you think the area under irrigation will change due to rise in population?
A:No, the area under irrigation will not change due to rise in population.

LONG ANSWERS V.IMP QUESTIONS

1Q. Explain the experimental procedure of the experiment "action of saliva on starch". Mention the result.
2Q. Explain the human respiratory system with a labelled diagram
3Q. Write the materials required, procedure and observation for preparation of a temporary slide of Rhizopus
4Q Explain the Evidences of evolution with examples.
5Q. Explain the various stages of mitosis with diagram
6Q Explain the procedure & results of Experiment to prove. root pressure.
7Q Learn the following diagram with labelling
* Structure of nephron & Kidney
* Internal structure of mammalian heart
*. Structure of human brain