

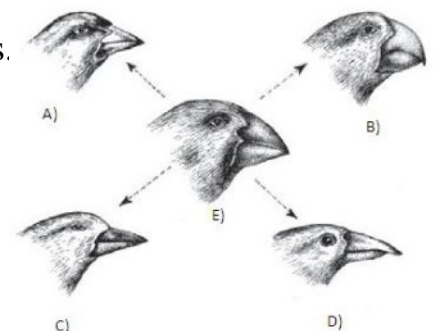
KANCHI KALVI'S BIOLOGY (Ln's-1 to 8) INTERIOR (2 MARKS)

Class: X STD

Subject: SCIENCE (BIOLOGY)

Chapter 1 HEREDITY AND EVOLUTION

1. What is called heredity?
2. Write the contrasting characteristics that Mendel focussed on the garden pea
3. Write the Mendel's Monohybrid Cross ratios.
4. What are called dominant & recessive trait.?
5. What are called Phenotype and Genotype?
6. Define Monohybrid Cross
7. What are called Genes & alleles?
8. What are variations? Mention their types.
9. Give the Significance of Variations.
10. Define Evolution
11. Write about the Neanderthal man
12. Define Genetic engineering
13. List the Merits of Genetic Engineering
14. List the Microbial metabolites in Scope of Bio-technology
15. Write the Medical products in Scope of Bio-technology
16. Mention the Organic acids in Scope of Bio-technology
17. Give the applications of Bio-technology
18. Write about Enzyme Technology
19. Write about Vaccines & Steroids:
20. Define the terms Monoclonal antibodies & Cloning
21. Explain the types of clones
22. List the two important characteristic features of stem cell.
23. How Finn Dorset white sheep was named as "Dolly" by Dr. Ian Wilmut.?
24. What are the two kinds of stem cells- explain ?
25. What are Bio-sensor & its uses.
26. What are Bio-Chips & its uses
27. Define Gene therapy & its uses
28. What are the types of Gene Therapy - explain
29. In which sources the somatic stem cells are derived ?
30. Identify the beaks of finches to suit their eating habits.
31. write the names of the scientists

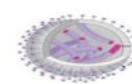
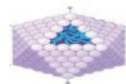


Chapter 2



IMMUNE SYSTEM

- 1) Define HEALTH AND ITS SIGNIFICANCE
- 2) Draw the flow chart of Dimensions of Health
- 3) Define Physical dimension
- 4) Define Mental dimension
- 5) Define Social dimension
- 6) What are the Causes of the diseases?
- 7) Based on the causative agent, how are diseases classified?
- 8) Write about Organic diseases or Metabolic disorders
- 9) Write about Hereditary diseases or Genetic disorders
- 10) Define Nutritional Deficiency Diseases
- 11) Tabulate any 2 DISEASES CAUSED BY VITAMIN DEFICIENCY
- 12) What are Parasitic Microorganisms?
13. Define Viruses and viral diseases in man
14. Define Bacteria and Bacterial Diseases
15. Define Fungi and Fungal Diseases?
16. What are Parasitic macro-organisms?
17. What is known as an infectious disease.
18. Label any two parts of the following
19. Give 2 Symptoms of Common Cold
20. Give 2 Transmission of Common Cold
21. Write about Causative agent, Symptoms of Influenza.
22. What do you know about Tuberculosis?
23. Write about Causative agent & Symptoms of Tuberculosis
24. Write any two Prevention of Tuberculosis

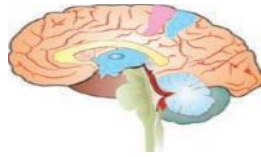




- 25. Write about Causative agent, Symptoms of Typhoid
- 26. How to Prevent and control Typhoid ?
- 27. Write about Causative agent & Symptoms of Amoebiasis
- 28. who is he ? write a few lines about him.



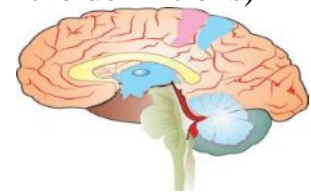
- 29. Write these two stages of hand washing technique
- 30. Name the three different genera of fungi
- 31. What is called transmission of the disease?
- 32. What are called fomites?
- 33. Name the diseases Transmitted by animals ?
- 34. What are called antibodies?
- 35. What are called antigens?
- 36. Define Immunity & Types of Immunity.
- 37. Define Natural or Innate Immunity
- 38. Define Acquired or Specific Immunity
- 39. Name two kinds of Acquired or Specific Immunity
- 40. What is called Artificially Active Acquired Immunity ?. Give example
- 41. What is called Artificial Passive Acquired Immunity ?
- 42. Define Immunization.
- 43. What kind of Immunity does a child get when it is breast fed ?
- 44. What are the bacteria protects the child from Breast milk?
- 45. Name two kinds of Medical Management involved.
- 46. What are the two ways to Prevent diseases?
- 47. Expand AIDS , HIV.
- 48. write about RETRO VIRUS
- 49. What are Symptoms of HIV?
- 50. Write the Test for Virus & Prevention of VIRUS.

Chapter 3

STRUCTURE AND FUNCTIONS OF HUMAN BODY-ORGANSYSTEMS



1. Label all the parts of the Diagrams _____
2. The nervous system of the human is composed of what?
3. Name three major parts of a nerve cell.
4. Define Nerve cells
5. What are called cyton and Nissle's granules?
6. What are called Axons and Dendrites?
7. What is called NEURO TRANSMITTERS?
8. Explain the terms a)Axoplasm b) Neurilemma. c)Nodes of Ranvier
9. Mention the types of nerve cells.(page-37 read all the definitions)
- 10.Which point is called synapse?
- 11.Define; Nerve impulse
12. How are Human Nervous System classified?
- 13.Write about Central Nervous System
- 14.What are called meninges?
- 15.Explain the terms Duramater, Arachnoid membrane, Piamater.
- 16.Name the three major parts of brain?
17. What are called corpus callosum?
18. What are the following otherwise called ? a) gyri b) sulci
- 19.Write the three areas of Cerebral cortex.(p-32 revise all the definitions)
20. Write about White matter of cerebrum
- 21.What are called ventricles, cerebro spinal fluid?
- 22.List out Functions of cerebrum.
- 23.Mark all the major internal parts of the human brain.
- 24.What are thalamus and hypothalamus?
- 25.What are cerebral aqueduct , corpora quadrigemina?
- 26.Mark all the Functional areas of human brain
- 27.What are called conus medullaris & Filum terminale?
- 28.What are called Cauda equine, dorsal fissure & ventral fissure
- 29.How many pairs of cranial & spinal nerves in Peripheral Nervous System
- 30.Explain about the Autonomic Nervous System (ANS).
- 31.Define ; endocrine system.
- 32.What are called hormones?
- 33.List & mark endocrine glands which are found in human's body..



34. Which is called as the conductor of the Endocrine Orchestra? - explain



35. Draw and mark internal view of pituitary gland

36. What are the Divisions of pituitary gland?

37. List out any 2 functions of **ADENOHYPOPHYSIS & NEUROHYPOPHYSIS.**

38. Write about thyroxine & its Functions ..

39. Draw the thyroid Gland of a) Dorsal view b) Ventral view



40. Write about Thyroid Disorders – Hypothyroidism.

41. Explain the terms simple goitre, myxoedema and cretinism.

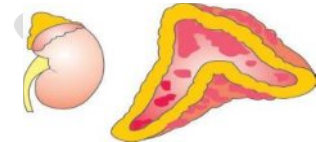
42. Write about Thyroid Disorders - Hyperthyroidism

43. Explain about The Islets of Langerhans

44. Mark the parts of The Islets of Langerhans

45. Write any two functions of Mineralocorticoid

46. Write any two functions of glucocorticoid.



47. Mark the parts of Adrenal gland & LS of Adrenal gland

48. write the works(functions) carried by **hormones of fight, flight and fright**

49. what are called testosterone and its functions of sexual characters in male?

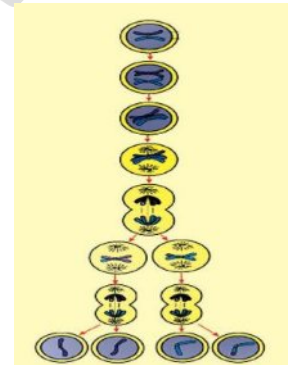
50. write about Oestrogen and Progesterone.

51. write about Parathyroid gland, Thymus gland & Pineal gland

52. what is called Amitosis?

53. What are the changes involved in cells by Meiosis & Mitosis?

54. Mark the Meiosis – stages in the diagram



55. What is called Reduction division?

54. Explain the terms **quadrivalents, Chiasmata, crossingover & terminalization.**

55. What is called Cytokinesis ?

56. Write the Significance of Meiosis.

57. Name the glands present in HEAD & NECK.

58. write about Diabetes Mellitus

59. Differ between Testes and Ovaries.

60. What are cervical plexus and lumbar plexus.?



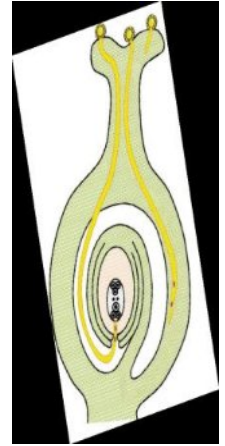
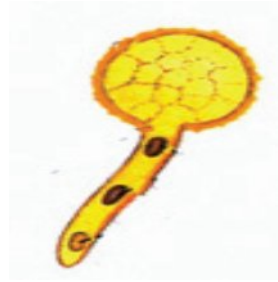
Chapter 4

REPRODUCTION IN PLANTS

1. Define – Reproduction
2. Write some of the methods of reproduction in organisms
3. Write about Bacteria that **Activity beneficial & Activity harmful to humans**
4. What is called binary fission?
5. Write a few lines about the first formed organism in the Earth?
6. Explain the terms Vegetative propagation, Fragmentation & Budding.
7. Mention some of the spores of asexual reproduction.
8. Write a few lines about Aplanospores, zoospores, akinetes & conidia
9. What do you mean by sexual reproduction in plants?
10. What are the main whorls of a complete flower?
11. Mark the Parts of a Flower in the given diagram.
12. Differ Androecium & Gynoecium
13. Name the three parts of Gynoecium.
14. How does sexual reproduction take place in flowering plants?
15. What is pollination? & name the pollinating agents.
16. Mention the types of Pollination.
17. What is known as Autogamy?
18. Give any two Advantages of self pollination.
19. Give any two DisAdvantages of self pollination
20. What is known as Allogamy?
21. Write the Advantages of cross pollination
22. How is it possible to transfer pollen grains from one flower to another?
23. What is called Entomophily?
24. Define Anemophily with example.

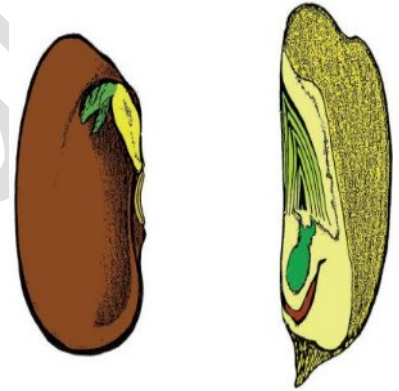


25. Define Hydrophily with example
26. What are called Exine and Intine?
27. Mark the parts in Germination of Pollen grain.
28. Write about Post fertilization changes .
29. .Mark the parts in the Process of Fertilization
30. What are called Parthenocarpic fruits? e.g.



31. Write about Simple fleshy fruits.(Revise tab.column – page -65 to 69)
32. Write short notes on Schizocarpic fruits
33. Compare aggregate fruits with multiple fruits (2 points) with examples.
34. Based on the number of cotyledons in the seed, classify the angiosperms.
35. What is called a micropyle?

36. What are called radicle and plumule ?
37. What are known as caryopsis and chaff ?
38. What are called adventitious roots ?
39. The seeds fall far away from the mother plant. Why?
40. Mark the parts in the above diagram.(monocot seed)



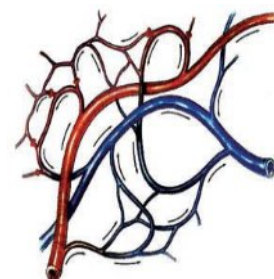
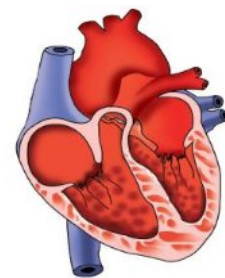
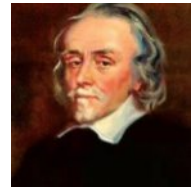
41. List out various types of dispersal mechanisms of fruits and seeds in plants.
42. What is the outcome of Darwin's study on seeds?
43. Write short notes on Autochory, Anemochory, Hydrochory & Zoochory
44. Give an example for Autochory, Anemochory, Hydrochory & Zoochory.
45. Man is responsible for the dispersal of many fruits and seeds – Explain
46. What is known as hypanthodium? eg (p-69.on tab.column)
47. What are called loculicidal and septicidal capsule.?(p-66 on bottom)
48. Mango is also known as stone fruit.- Explain (p-66 on top)
49. Draw the flow chart on classification of Fleshy fruit (p-64 on bottom)
50. Draw the flow chart on classification of Dry fruit (p-64 on bottom)

Chapter 5



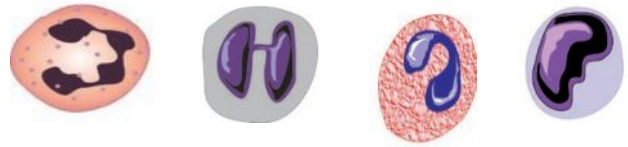
A REPRESENTATIVE STUDY OF MAMMALS

1. Mammals are distinguished from other vertebrates - Explain
2. Tabulate some (anytwo) mammals and their habitats:
3. Mention some animals adapted to various conditions of life.
4. What are called krill ?(page no- 82)
5. Camel protect their eyes from sand storms & sand particles- Explain
6. Stomach of cattle also helps them to ruminate or chew the cud.-Explain
7. How does the bat hear the echo?
8. Man is an intellectual social animal – why?
9. Write about Haemoglobin.
10. In man, the circulatory system is composed of what?
11. Who is he ? write a few lines about him.
12. What are called pericardium & cardiac muscle?
13. What are called inter-auricular septum?
14. Explain about Valves of the Heart & its functions.
15. Mark the parts in the given heart diagram.(any 4)
16. What are called systole and diastole?
17. What are called meta arterioles & capillaries?
18. Label the parts in the given diagram.



19. Name the plasma proteins used for immunity, blood clotting & water balance

20. Name the three types of blood cells.



21. Identify and re-draw the blood cells

22. Label parts in Excretory System of Man

23. Kidney is master chemists of our

body – Explain.

24. What are called renal hilus & ureter?

25. Label the parts in Internal Structure of Kidney

26. Write about Structure of a Nephron.

27. Label the parts in Nephron

28. Tabulate excretory organ & its excretory products

29. List some uses of forelimbs in mammals

30. Identify the forelimbs of mammals given below



31. What are called imprinting & filial imprinting ?

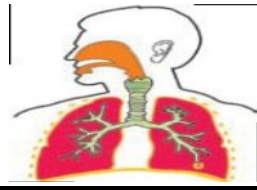
32. What is called cross fostering ?

33. What is called courtship signalling? (page - 90 in Sex. Imprinting paragraph)

34. What is called parental care?

35. Write about the abstract of case study by Arun Venkatraman.

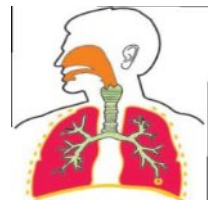
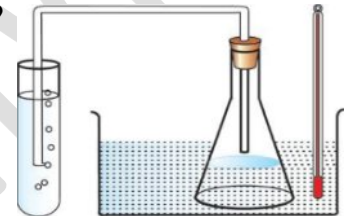
36. Write about Asiatic wild dog “Chen Nai” in Tamil, commonly called Dholes.



Chapter 6

LIFE PROCESSES

1. Name the life process includes the activities performed by the different organs to maintain the body. (read all the terms, may be asked in 2marks)
2. Explain process of bio-chemical reaction.
3. What are the types of Nutrition?
4. Define - Autotrophic nutrition
5. Name the raw materials and other substances required for photosynthesis.
6. Define Heterotrophic Nutrition
7. What are called Parasites and hosts?
8. What is the function of phloem & xylem in Parasitic plants?
9. Give two examples for parasitic plants.
10. What are called Saprophytes?
11. What is called intracellular digestion?
12. What is called as extracellular digestion?
13. What is called digestion?
14. The digestive system is composed of two groups of organs- Explain.
15. What is known as respiratory substrate. and its kinds?
16. What are the types of Respiration?
17. What is known as aerobic respiration?
18. The process of Aerobic Respiration takes place in four stages - write down.
19. What is known as fermentation? Give eg.
20. Write down the break-down of glucose by various pathways (Eqns.)
21. Label the parts in the above Anaerobic Respiration apparatus.
22. Label the parts in Human Respiratory System.
23. What is called Alveoli?
24. Draw and label the parts in the Root hair region.
25. Draw and label the parts in the path of water across the root.
26. What is known as transpiration & translocation?
27. What is the function of Lymph?
28. What is excretion?
29. What are the different ways of excretion in plants?
30. Write about Artificial kidneys?
31. What are called ammonotelic, uricotelic & ureotelic animals?
32. List the two different types of movements in plants.
33. Write the different types of Movement Dependent on Growth (page -110)
34. Explain the terms (Phototropism) (Geotropism). (Hydrotropism). (Chemotropism)
35. write the parts involved in the given diagram of Geotropism

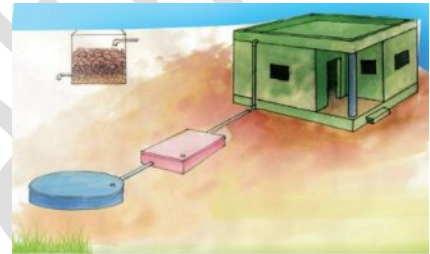




Chapter 7

CONSERVATION OF ENVIRONMENT

1. Define Environmental science.
2. What is Pollution?
3. What are Pollutants?
4. Write down the CLASSIFICATION OF WASTES.
5. Explain the disposal of harmful waste materials.(p-118 read all terms)
6. What are called as Seeding clouds?
7. Define Desalination: (Reverse osmosis)
8. Write about Water Shed Management.
9. Label the parts in Rain water harvesting
10. What is called an eco-system?
11. Revise tab.column in page nos. - 121 , 122
12. What are the major components in an Ecosystem?
13. Draw the Flow of energy in an ecosystem
14. Define ; A balanced eco-system
15. What is Food Chain and Food Web?
16. List any two environmental effects of coal burning
17. How petroleum was formed?
18. what are Tar Balls ?
19. Write down Alternatives to Petroleum – based Vehicle Fuels
20. What is Green chemistry ?
21. What are the Principles of Green Chemistry?
22. What are Products Produced by the Process of Green Chemistry?
23. What is Global Village?
24. What is the global electronic village?
25. Write about Oil Spills .



Chapter 8



WASTE WATER MANAGEMENT

1. What is known as aquifers & artesian well?
2. Write the three stages involved in Conventional sewage treatment.
3. List out that water could be reused for a multitude of purposes includes.
4. What are the Benefits of household waste water recycling systems:
5. Write about Waterborne diseases.
6. Give short notes Water-washed , Water-based & Water-related Diseases
7. Wastewater can also be used as a fertilizer- why?
8. List out Basic rules for sanitation in public places
9. What is Energy Management ?
10. write a note on Renewable sources.
11. write a note on Non-renewable Sources
12. What are Fossil Fuels ?
13. Give some uses of Natural gas.
14. What are called Bio-fuels ?
15. Name the various liquid bio-fuels for transportation
16. Explain the terms as follows Bio-ethanol, Bio-diesel & Bio-gas:
17. Write down Energy Conservation in Lighting
18. Write down Energy Conservation in Electronic Devices
19. Write down Energy Conservation in Electric Iron Box
20. Write down Energy Conservation in Gas Stove & Washing Machine

- PREPARED FOR THE BETTERMENT OF ALL CHILDREN

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