Step Academy official

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STUDENT NAME	
PAPER CODE	52938
TIME ALLOWED	
Paper Date	

CLASS	9th
SUBJECT	BIOLOGY
TOTAL MARKS	
Paper Type	

Q1. Choose the correct answer.

1. Ms Aisha was busy in dissecting and analyzing the heart of frog probably she is

(A) Cell biologist **(B)** taxonomist **(C)** Histologist **(D)** palaeontologist

2. Ms Aisha was busy in dissecting and analyzing the heart of frog probably she is

(A) Cell biologist **(B)** taxonomist **(C)** Histologist **(D)** palaeontologist

3. How many people get lung cancer by smoking? This question can be answered through:

(A) Biometry **(B)** biophysics **(C)** Bio – economics **(D)** palaeontology

4. Al.Qanun-fil-Tibb is the famous book of:

(A) Bu Ali sina **(B)** Jabir Bin Hayyan **(C)** Abdul Malik Aasmai **(D)** Ibn Nafees

5. One of the following contains large number of cells but not a multicellular.

(A) Frog **(B)** Volvox **(C)** mushroom **(D)** Chlamydomonas

6. According to five kingdom system of classification mushrooms belong

(A) Plantae **(B)** Fungi **(C)** Animalia **(D)** Protista

7. The level of organization which is represented by the heart of frog is:

(A) Organ **(B)** Tissue **(C)** Organism **(D)** Organelle

8. One of the following is not a macromolecule:

(A) Glucose **(B)** Sucrose **(C)** Fatty acid **(D)** protein

9. The number of plants in desert are scarce this could be the statement of:

(A) Palaeontologist **(B)** Social biologist **(C)** Biogeographic **(D)** Taxonomist

10. Which bio-element makes most of the composition of organism's body?

(A) Hydrogen **(B)** Carbon **(C)** Oxygen **(D)** nitrogen

11. Which of the following cellular organization represents volvox?

(A) Unicellular **(B)** Multicellular **(C)** Bi-cellular **(D)** Colonial

12. Sience is the study that inculdes:

(A) Observation **(B)** Expriments **(C)** Both A and B **(D)** None of these

13. Scientific study of living organisims is called :

(A) Biotecnology **(B)** Chemistery **(C)** Biology **(D)** Geology

14. Word "Biology " has been derived from:

(A) English **(B)** Greek **(C)** Itallin **(D)** French

15. The devision of biology that deals the study of animals is called:

(A) Botony **(B)** Microbiology **(C)** Anatomy **(D)** Zology

16. The brench of biology that deals with the study of from and structures of living of orgnism is called :

(A) Morphology **(B)** Anatomy **(C)** Histrology **(D)** Cell biology

17. The microscopic study of tissues:

(A) Plontology **(B)** Pharmacology **(C)** Entomology **(D)** Histrology

18. Histrology is the scientific study of:

(A) Tissue **(B)** Muscles **(C)** Cells **(D)** Organs

19. The study of the functiones of differents parts of living orgnisms is called:

(A) Morphology **(B)** Anotamy **(C)** Histrology **(D)** Physiology

20. The study of structure and function of cell and cell orgenelles is :

(A) Histrology **(B)** Anotomy **(C)** cell biology **(D)** Plontology

21. Which one is the first step in biological method?

(A) Hypothesis **(B)** Experiment **(C)** Observations **(D)** Deduction

22. What is the correct experiment to know that Plasmodium destroys red blood cells?

(A)	**(B)**	**(C)**	**(D)**
Examine the blood of a single healthy person	Examine the blood of a single infected person	Allow mosquito to bite a healthy person and examine his blood	Examine the blood of some healthy and also some infected persons

23. What is the best way to analyse the data collected from experiments?

(A)	**(B)**	**(C)**	**(D)**
Reading the data and drawing conclusions	Discussion with scientists	Simple calculations on calculator	Application of statistical formulae

24. Which one of the following is NOT a characteristic of a hypothesis.

(A) It must be consistent with all available data **(B)** It must be testable **(C)** It must be correct **(D)** Must make deductions

25. Deductions are made from;

(A) Observations **(B)** Hypothesis **(C)** Experiment results **(D)** Solution of biological problem

26. Which one of the following is true about the statement of hypothesis?

(A) Logical **(B)** Possible answer **(C)** based upon observations **(D)** All of them

27. The actual answer to scientific problem is:

(A) Observations **(B)** Hypothesis **(C)** Data **(D)** Conclusion

28. Which mosquito can transmit Plasmodium in human beings?

(A) Anopheles **(B)** Culex **(C)** Aedes **(D)** All of these

29. For the first time, who found Plasmodium in the blood of malarial patient?

(A) Ronald Ross **(B)** Laveran **(C)** A.F.A. King **(D)** Mendel

30. Which character of viruses makes their resemblance with living organisms?

(A) They can be crystallized **(B)** They cannot live outside host body **(C)** They contain DNA or RNA **(D)** All of the above

31. The correct sequence of hierarchy from small to large units is:

(A) Genus → family → order → **(B)** Family → order → clas **(C)** Genus → family → cla **(D)** Species → family → ger

32. The kingdom which contains eukaryotic, autotrophic organisms is:

(A) Protista **(B)** Monera **(C)** Fungi **(D)** None of them

33. The Five kingdom system of classification was modified by:

(A) Robert Whittakar **(B)** Margulis and Schwartz **(C)** Carolus Linneaus **(D)** Aristotle

34. Aristotle classified organisms on the basis of:

(A) Habitats **(B)** Cell structure **(C)** Morphology **(D)** Anatomy

35. Which of the following kingdoms possesses the simplest organism?

(A) Fungi **(B)** Monera **(C)** protista **(D)** plantae

36. Which one is the correct way of writing scientific name of an organism?

(A) Canis lupus **(B)** Saccharum **(C)** Giant's gazelle **(D)** Escherichia coli

37. Which kingdom includes organisms with cell wall but without chlorophyll?

(A) Protista **(B)** Fungi **(C)** Plantae **(D)** Animalia

38. Which one is the basic unit of classification?

(A) Genus **(B)** Species **(C)** Family **(D)** Order

39. Maximum biodiversity is found in:

(A) Forests **(B)** Grasslands **(C)** Deserts **(D)** Mountains

40. Schleiden and Schwann proposed the cell theory on the basis of:

(A) Their observation **(B)** Observations of Hooke and Brown **(C)** All observations on the cell **(D)** Observation made on the nucleus of the cell

41. We obtain 2D images through:

(A) Light microscope and SEM **(B)** SEM and TEM **(C)** Light microscope and TEM **(D)** Light microscope

42. Inside the nucleus, granular material is called:

(A) Cytoplasm **(B)** Protoplasm **(C)** Nucleoplasm **(D)** Cell sap

43. The organelle involved in protein synthesis is:

(A) Ribosome **(B)** Vacuole **(C)** Golgi apparatus **(D)** Plastids

44. The nervous tissue has the ability to:

(A) Contract and relax **(B)** Transmit the impulses **(C)** Prepare secretion **(D)** Provide energy

45. In plants, which tissue makes new cells?

(A) Meristematic tissue **(B)** Collenchyma tissue **(C)** Epidermal tissue **(D)** Ground tissue

46. Movement of molecules from lower to higher concentration with the expenditure of energy is:

(A) Diffusion **(B)** Active transport **(C)** Facilitated transport **(D)** Osmosis

47. One of the following has both cytoplasm and cell wall:

(A) Muscle cell **(B)** Red blood cell **(C)** Root hair cell **(D)** Xylem vessel

48. Cell membrane is made of:

(A) Cellulose only **(B)** Proteins only **(C)** Lipids only **(D)** Lipids and proteins

49. Cell wall is present in the cells of:

(A) Fungi only **(B)** Plants only **(C)** Plants and prokaryotes only **(D)** All of the above

50. Which organelles are covered with a double membrane?

(A) Ribosomes **(B)** Vacuoles **(C)** Centrioles **(D)** Mitochondria

51. All of the following are true for meiosis, EXCEPT:

(A) There is no DNA synthesis between the divisions **(B)** The result is four cells with haploid number of chromosomes **(C)** Meiosis does not contribute to the genetic diversity in populations **(D)** Fusion of two products of meiosis produces a zygote

52. If 2n=8, for a particular cell, then the chromosome number in egg cell after meiosis would be:

(A) 12 **(B)** 10 **(C)** 8 **(D)** 4

53. During which stage of meiosis do the chromosomes have the least amount of DNA?

(A) Prophase-I **(B)** Prophase-II **(C)** Telophase-I **(D)** Telophase-II

54. Which statement concerning both mitosis and meiosis is correct?

(A) Meiosis produces 4 haploid cells while mitosis produces 2 diploid cells. **(B)** Meiosis produces 4 diploid cells while mitosis produces 2 hapioid cells. **(C)** Meiosis maintains the number of chromosomes, while mitosis reduces it. **(D)** Prophase 1 of mitosis results in the formation of a tetrad but not in prophase-I of meiosis 1.

55. During which phase of meiosis, crossing over occurs?

(A) Prophase-I **(B)** Metaphase-I **(C)** Metaphase II **(D)** Anaphase-I

56. Which of the following occurs during meinsis-I but not during mitosis?

(A) The chromatids of each chromosome are separated. **(B)** Synapsis and crossing over occurs **(C)** The nuclear envelope breaks down **(D)**

57. Meiosis takes place in which of the following organs?

(A) Testes **(B)** Lungs **(C)** Heart **(D)** Stomach

58. Two sister chromatids are collectively called;

(A) Chromosome **(B)** Centromere **(C)** Multichromatid **(D)** Homologous pair

59. During the process of regeneration, the type of cell division is:

(A) Only 1" meiotic division **(B)** Both meiotic divisions **(C)** Mitosis **(D)** All of them

60. Which of the t following statements are true about homologous chromosomes:

(A) They are identical **(B)** They pair-up during meiosis **(C)** One partner of homologous pair move to each daughter cell **(D)** All of them

61. The chemicals which are involved as catalysts inside the living bodies are:

(A) Carbohydrates **(B)** Fats **(C)** Proteins **(D)** Starch

62. Enzymes are biological catalysts which:

(A) Allow new chemical reactions to occur. **(B)** Are used up during chemical reactions. **(C)** Alter the direction of chemical reactions. **(D)** Alter the rate of chemical reactions.

63. What is TRUE about enzymes?

(A) All parts of enzyme molecule take part in reaction **(B)** Enzymes lower the activation energy of reaction **(C)** An enzyme can act upon any kind of substrates **(D)** They are needed in large quantities

64. What is TRUE about cofactors?

(A) Take part in reactions **(B)** Help enzymes in their activity **(C)** Increase activation energy **(D)** Are composed of proteins

65. One of the following may function as coenzymes for the enzymes

(A) Proteins **(B)** Carbohydrates **(C)** Vitamins **(D)** DNA

66. Increase or decrease in temperature beyond the optimum temperature will:

(A) Increase the rate of reaction **(B)** Decrease the rate of reaction **(C)** Not affect the rate of reaction **(D)** Denature the enzyme

67. Trypsin, an enzymes, works at:

(A) alkaline pH **(B)** acidic pH **(C)** neutral pH **(D)** pH does not affect its activity

68. Change in environmental factors will affect enzymes activity and therefore, may affect:

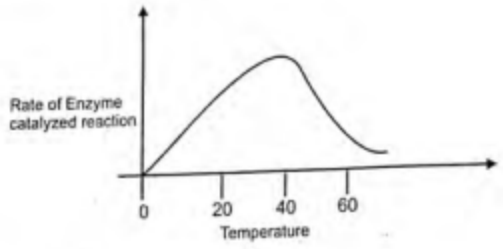
(A) Metabolism **(B)** Respiration **(C)** Digestion **(D)** All of them

69.

The body temperature at 104°F is known as critical because it causes:

(A) Nerves breakdown **(B)** Boiling of body water **(C)** Enzymes stop to work **(D)** None of them

70.
The graph below show that the rate of an enzyme-catalysed reaction, its rate:



(A) Increases when the temperature is increased

(B) Decreases when the temperature is increased

(C) Increases with temperature upto a maximum of 40^0 C

(D) remain unchanged

71. The site of the cell for the dark reaction is:

(A) Mitochondria **(B)** Ribosome **(C)** Granum of chloroplast **(D)** Stroma of chloroplast

72. The organisms responsible for trapping light energy are:

(A) Plants **(B)** Algae **(C)** Photosynthesis organisms **(D)** Fungi

73. Photosynthesis takes place in:

(A) Mesophyll cells **(B)** Guard cells **(C)** Phloem cells **(D)** All of the above

74. One of the following pair of light colours is important for photosynthesis:

(A) Green and yellow **(B)** Green and orange **(C)** Yellow and orange **(D)** Red and blue

75. One of the following is not a limiting factor for enzymes in photosynthesis:

(A) CO_2 concentration **(B)** Temperature **(C)** Light intensity **(D)** Pigments

76. One of the following may not be required for respiration:

(A) Oxygen **(B)** Food molecule **(C)** Enzymes **(D)** CO_2

77. In the structure of ATP, the three phosphate groups are linked to:

(A) Ribose **(B)** Adenine **(C)** Glucose **(D)** H_2O

78. A car engine uses fuel for work to do. To carry out functions, a living cell uses:

(A) Electric power **(B)** ATP **(C)** Generator **(D)** Heat energy

79. Inside a bacterial cell, glycolysis occurs in:

(A) Mesosome **(B)** Cytoplasm **(C)** Mitochondria **(D)** Nucleoid

80.
The consumption during the conversion of pyruivic acid into ethanol during anaerobic respiration is/are:

(A) one $NADH_2$ **(B)** one $NADH_2$ and CO_2 **(C)** two $NADH_2$ **(D)** only CO_2

81. The deficiency of which macronutrients causes chlorosis in plants?

(A) Carbon **(B)** Oxygen **(C)** Nitrogen **(D)** Calcium

82. All of the following are elements that plants need in very small amounts (micronutrients) except:

(A) Hydrogen **(B)** Chlorine **(C)** Iron **(D)** Copper

83. Which substance, is used by plants to make proteins?

(A) Carbon dioxide **(B)** Nitrates **(C)** Oxygen **(D)** Vitamins

84. What happens when food reaches the stomach?

(A) No digestion occurs in the stomach.

(B) The food moves quickly into the small intestine.

(C) Juices mix with the food and stomach muscles squeeze it.

(D) The food is completely digested and is absprbed into system.

85. Which of the following does NOT manufacture digestive juices?

(A) Oesophagus **(B)** Pancreas **(C)** Stomach **(D)** Intestine

86. What is absorbed from the material when it is in the large intestine?

(A) Water **(B)** Vitamins **(C)** Salts **(D)** All of these

87. Which of the following is NOT a function of salivary glands?

(A) Start digestion of proteins

(B) Secrete saliva

(C) Helps in the lubrication

(D) Makes taste possible

88. The cardiac sphincter serves as a valve between:

(A) Stomach and duodenum

(B) Oesophagus and stomach

(C) "Duodenum and ileum

(D) Jejunum and caecum

89. The function of the liver is to:

(A) Metabolize carbohydrates, lipids and proteins

(B) Break mature red blood cells.

(C) Detoxify the chemicals

(D) All of the above

90. The digestive enzyme pepsin secreted by gastric glands begins the digestion of;

(A) Carbohydrates **(B)** Fats **(C)** Proteins **(D)** Vitamins

91. A patient with blood group A can be given the blood of group;

(A) A and AB **(B)** A or O **(C)** A only **(D)** O only

92. Myocardial infarction is due to blockage of blood flow in;

(A) Aorta **(B)** Coronary artery **(C)** Pulmonary artery **(D)** Hepatic artery

93. According to pressure-flow theory one of the following is NOT a sink:

(A) Root **(B)** Leaves **(C)** Stem tubers **(D)** Fruits

94. When you suck a cold drink using drinking straw. It resembles with:

(A) Diffusion **(B)** Flow of material in xylem **(C)** Flow of material in phloem **(D)** Root pressure

95. The cells which form platelets are:

(A) Erythrocytes **(B)** Leucocytes **(C)** Bone marrow cells **(D)** All of these

96. Valves to prevent the backflow of blood are found in the;

(A) Arteries **(B)** Veins **(C)** Capillaries **(D)** Arteries and capillaries

97. Which of the following chambers has the thickest walls in human heart?

(A) Right atrium **(B)** Left atrium **(C)** Left ventricle **(D)** Right ventricle

98. Which cells of blood are responsible for clotting?

(A) Platelets **(B)** Erythrocytes **(C)** Neutrophils **(D)** Basophils

99. All veihs carry deoxygenated blood except the one vein called:

(A) Vena cava **(B)** Hepatic portal **(C)** Pulmonary **(D)** Renal

100. The exchange of materials between the blood and tissues occurs in;

(A) Arteries **(B)** Veins **(C)** Capillaries **(D)** Arteries and veins

Q2. Write short answers of the following questions.

1 . How the understanding of physics can help the biologist?

2 . Which career would you like to adopt after studying biology and why?

3 . Write the translation of any three verse of the holy Quran related to the creation of mankind?

4 .

Name few Muslim scientists and their contributions in the field of biology and Medicine?

5 . What level of organization is represented by Volvox?

6 . Control group is important for scientific study, How?

7 . What deductions were developed during the study of Malaria?

8 .
How Ronald Ross conducted the experiment to prove that mosquitoes are involved in the spread of malaria?

9 . At what stage of the biological method, Hypothesis, is accepted or rejected?

10 .
List down the endangered species of Pakistan? And what are the reasons behind their population decrease?

11 . How you can differentiate between kingdom Monera and Protista?

12 . What is the status of viruses in classification?

13 . Why is it important for a biologist to understand biological classification?

14 . How Deforestation lead to desertification?

15 . Who proposed the cell theory and what are the main points of the cell theory?

16 . Differentiate between simple and compound tissue?

17 . How cell membrane helps in maintaining equilibrium while exchange materials with environment?

18 . How does turgor pressure develops in a plant cell?

19 . How does turgor pressure develops in a plant cell?

20 . Difference between plant cell and animal cell?

21 . What is Filtration? Justify the statement.

22 . Define turgidity and plasmolysis?

23 . Differentiate between endocytosis and exocytosis?

24 . How does turgor pressure develops in a plant cell?

25 . Define cell cycle and how may phases it is divided?

26 . In which type of cell, meiosis take place and why it is important?

27 . How does normal mitosis ensures normal life?

28 . Give at least four differences between mitosis and meiosis?

29 . What is chiasma and what is its role in crossing over?

30 . Why enzymes are specific in their function discuss?

31 . Describe the mechanism of enzyme action?

32 . Difference between lock and key model and the induced-fit model.

33 . In what way does an enzyme affect the chemical affect the chemical reactions its catalysis?

34 . What will be the effect on digestion of we take some digestive enzymes from outsides?

35 . What is meant by denaturation of enzymes?

36 .
substrate? How are enzymes specific for the
37 .

What term is used to describe the condition of the enzyme when it is heated to a temperature of 60C^{o}and above?
38 . Define photosynthesis? Write its importance.

39 .
How much energy is produced during respiration?
40 . Compare Aerobic respiration with anaerobic respiration?

41 . Compare photosynthesis with respiration.

42 . Why ATP is regarded as the currency of the living cells?

43 . What is the role of pigment during photosynthesis?

44 . Draw the structure of ATP molecule?

45 . Compare lactic acid fermentation with alcoholic fermentation?

46 . Why are oxidation and reduction important for plants?

47 . Define Nutrition and its types?

48 . Enlist environmental hazards related to use of chemical fertilizers.

49 . Define vitamins and its types?

50 . Write the sources, Role and Deficiency symptoms of iron?

51 . Write the importance of water?

52 . What are the causes of malnutrition.

53 . Define digestion, ingestion, absorption, assimilation, egestion?

54 . List all parts (in order) of the human digestive system through which food actually passes?

55 .
How does the digestion and absorption of fats differ from the digestion and absorption of carbohydrates and protein?

56 . What is malnutrition? Why it is considered to be a health hazard?

57 . Discuss the role of dietary fibers in balanced diets?

58 . What is transport?

59 . Write the significance of transpiration?

60 . discuss? Transpiration is a necessary evil-

61 . Why does a RBC lack cellular organelles?

62 . why? Is the rate of transpiration higher on a sunny day or a rainy day,

63 . What will happen to transpiration stream if the air is injected in xylem vessels?

64 . What is translocation of food in plants?

65 . What is transpiration pull? Describe the importance of transpiration in the life of the plant?

66 . Describe the composition of human blood. What are the main function of blood cells?

67 . how does the pressure-flow theory explain the movement of sugars through phloem vessels of plant?

68 . How are different blood groups formed. What is their practical implication in blood transfusion?

69 .
If we do not take water the whole day in the month of June, what would be the effect on volume of plasma in blood?

70 . Write any four differences between xylem and phloem?

Q3. Write detailed answers of the following questions.

1 . Define Biology. Describe various branches of biology.

2 . Describe different careers plants in the field of Biology.

3 . Discuss five kingdom system of classification.

4 . Discuss Biology in the light of Holy Quran.

5 . Describe the contribution of Muslims scientist in the field of Biology.

6 . Describe various level of biological organization.

7 . Define cellular organization? Describe various type of cellular Organization.

8 . Enlist the various levels of biological organization and explain it with an example?

9 . Explain the role of Bio-elements for living organisms?

10 .
Who classified the living organisms into five kingdoms? Explain each kingdom with the living organisms included in it.

11 .

Differentiate between inductive reasoning and deductive reasoning?

12 .
Explain how biologists use scientific method to solve the mysteries of addressing the malarial problem?

13 . Explain that how mathematics can be used to interpret the data obtained through experimentation

14 . what is the relationship of biology with Mathematics?

15 . Discuss data organization and data Analysis?

16 . Write a comprehensive definition of theory, law or principle.

17 . Explain the conservation issue in Pakistan.

18 . Write the importance of forests?

19 . Define deforestation? Discuss its causes and effects.

20 .
List down the endangered species of Pakistan? And what are the reasons behind their population decrease?

21 . Define wild life. Describe the conservation of wildlife.

22 . What do you know about conservation of biodiversity? Why conservation of biodiversity is important?

23 . List down the biological names of some plants and animals.

24 . Explain binomial nomenclature and its rules? Discuss its importance.

25 . Write a distinguishing characteristic of the five kingdoms of living organisms?

26 . Discuss five kingdom system of classification.

27 . Discuss two kingdom system of classification? Write the reason of its failure.

28 . Discuss the old history of classification?

29 . Write the taxonomic hierarchy of Amoeba, Mustard, Mushroom, man and panther?

30 . What is Hierarchy of taxonomy? Discuss various categories of hierarchy.

31 .
Define classification? Explain the aims and principles of classification. Keeping in view its historical background?

32 . What is biodiversity? Write its importance.

33 . Discuss different types of animal tissues?

34 . Discuss endocytosis and exocytosis?

35 . Discuss different types of tissue found in plants. Elaborate your answer with relevant diagrams?

36 . Describe the nervous, muscular and epithelial tissues?

37 . Write a note on the structure of cell wall, cell membrane, mitochondria and chloroplast of a plant cell?

38 . Describe the structure and function of Ribosome and Plastid?

39 . What is cell cycle? Describe various phases of interphase of cell cycle with diagram.

40 . Define Mitosis? Describe various stages of mitosis in detail?

41 . Define Cytokinesis? Write the mechanism of cytokinesis in animal and plant cells?

42 . Write the significance of Mitosis?

43 . Define Meiosis? Write the various stages of Meiosis.

44 . What is the significance of meiosis?

45 . Write note on apoptosis and Necrosis?

46 . Describe various phases of interphase of cell cycle with diagrams.

47 . Explain different stages of mitosis with diagrams and at what stage, cytokinesis take place?

48 . Define metabolism and its types?

49 . Write the characteristics of enzymes.

50 . Describe the mechanism of enzyme action?

51 . What is the effect of temperature, PH and substrate concentration on enzymes activity?

52 . Describe the factors which affect the enzymes activities?

53 . Explain the mode of action of an enzyme in a reaction?

54 . what are the various properties of enzymes?

55 .
Define Bioenergetics, Metabolism, type of Metabolism and also write the importance of Bioenergetics?

56 . What is oxidation Reduction reaction? Write its importance.

57 .
ATP? Write note on the synthesis, breaking and recycling of

58 . Define photosynthesis? Write its importance.

59 . Write the Role of Chlorophyll and Sunlight in Photosynthesis?

60 .
Describe the structure of chloroplast?

61 . Write the process of intake of carbon dioxide and water?

62 . Enlist the main events in mechanism of photosynthesis?

63 .

What is limiting factor? Write the concept of limiting factors in photosynthesis.

64 . Define respiration and its types.

65 . Compare lactic acid fermentation with alcoholic fermentation?

66 . Describe various steps of Aerobic Respiration.

67 . Why aerobic respiration is considered as to be more efficient then anaerobic respiration?

68 .
Aerobic respiration generates more ATP molecules than an aerobic process. Which processes of aerobic respiration are responsible for this higher generation of ATP and how?

69 . Define Nutrition and its types?

70 .
life? Explain the role of minerals elements in plants

71 . Write the Role and Deficiency symptoms of Nitrogen and Magnesium?

72 . What are fertilizers in how many groups they are classified, also write its importance?

73 . Define carbohydrate and its types?

74 . Write note on protein?

75 . Write a comprehensive note on fats?

76 . Write the sources, importance and deficiency symptoms of vitamin A, and vitamin D?

77 . Define minerals? Enlist some minerals needed for our body.

78 . Write the sources, Role and Deficiency symptoms of iron?

79 . What is dietary fiber? Discuss the role of dietary fiber in balance diet.

80 . Define balance diet? Write its importance.

81 . Define Malnutrition. Discuss the types of malnutrition?

82 . Describe the structure of human digestive system in detail?

83 . Discuss some disorder of gut?

84 . List down major enzymes in human digestive system. Elaborate their role in digestion**?**

85 . Describe the structure of a villus, including the roles of capillaries and lacteals?

86 . What is transport?

87 . What is transpiration? Discuss transpiration from leaves?

88 . Discuss the stomatal control of transpiration?

89 . Write the significance of transpiration?

90 . Discuss the transportation of water in plant body?

91 .
What do you know about the translocation of organic solutes in plants. OR What is the mechanism of translocation of food?

92 . blood. Discuss disorder of

93 . Define Antigen and antibody?

94 . How different blood groups are formed. What is the practical implication in the blood transfusion?

95 . Describe the structure of human hart with the help of labeled diagram?

96 . What is cardiac cycle?

97 . Write a note on pulse rate?

98 . Name major arteries and veins and discuss the organ to which they target?

99 . Discuss the discovery of blood circulation?

100 .
: Can a person with blood type AB donate blood to a person with blood type A? Explain your answer?