1. What are life processes?
2. What are enzymes?
3. Why is our food carbon based?
4. Why is diffusion not enough to meet the needs of multicellular organisms?
5. Name and describe the mode of nutrition of algae, fungi and bacteria
6. What are the major events during photosynthesis? Write the equation of photosynthesis.
7. What are the raw materials for Photosynthesis?
8. What are the products of photolysis of water?
9. How do desert plants carry out photosynthesis?
10. Draw a diagram for open stomatal pore.
11. What causes opening and closing of stomata?
12. How will you prove that light is necessary for photosynthesis?
13. Give reasons-
    a) We use variegated leaf in activity 5.1 (NCERT Page 82)
    b) Leaf is boiled in alcohol
    c) Plant is kept in a dark room
    d) Iodine solution is used
    e) KOH is used in activity 5.2 (NCERT Page 83)
    f) The bell jar is sealed with vaseline
14. What is the similarity between chlorophyll and haemoglobin? What is the difference?
15. Draw a diagram for nutrition in amoeba.
16. Name an organism which shows
    a) extracellular digestion
    b) Intracellular digestion
17. How is food moved along the gut?
18. Write two functions of hydrochloric acid in stomach.
19. List all the digestive glands in our digestive system, enzyme or juice produced by them and their respective roles in the process of digestion. (make a table)
20. Differentiate between-
    a) saprophytic nutrition and parasitic nutrition
    b) Pepsin and salivary amylase
    c) Pepsin and Trypsin
21. Name the three secretions of gastric glands.
22. What is the function of mucus in stomach?
23. Name the sphincter which regulates the exit of fecal matter from the anus.
24. Give two functions of bile juice. By which organ is it produced? Where is it stored?
25. Bile contains no enzymes but still it is important for digestion. Why?
26. What is the role of saliva in digestion?
27. Describe the mechanism of aerobic respiration.
28. What is the difference between-
    a) Breathing and respiration
    b) inhalation and exhalation
29. How are Oxygen and Carbon dioxide transported in our body?
30. What is the fate of glucose molecule in anaerobic respiration in yeast and lactobacillus bacteria.
31. Name the common process and its site in both anaerobic and aerobic respiration.
32. Why is it essential to separate oxygenated and deoxygenated blood in mammals and birds?

33. Explain the process of breathing including the role of muscles in inhalation.
34. What are the modes of respiration in bacteria and fungi?
35. Why do plants need less energy than animals?
36. What happens to the energy released during respiration?
37. a) Name the blood vessel that brings oxygenated blood to human heart.
    b) which Chamber of human heart receives oxygenated blood
    c) oxygenated blood is sent to all the parts of the body from this chamber.
38. What prevents blood from flowing backwards in veins?
39. Give two advantages of blood clotting.
40. Why are the walls of the ventricle thick?
41. Draw a diagram for double circulation.
42. Name one unicellular organism which respires anaerobically.
43. Why does the heart beat? How is it caused?
44. What is meant by systolic and diastolic pressure? What are their normal values?
45. Why is blood red?
46. Name the device that measures blood pressure.
47. What is the normal blood pressure of man?
48. Why are capillaries thin walled?
49. What is lymph? What are its functions?
50. Which function is only performed by lymph but not by blood?
51. What is the liquid part of blood called? What are the functions of this part?
52. How many types of blood vessels are there in human body? Name them.
53. Define transpiration.
54. Which are the two transport systems in plants?
55. Briefly explain the mechanism of ascent of sap in plants.
56. Name the two forces responsible for transport of water in plants.
57. How does water enter the root cells?
58. What are the two roles performed by kidney?
59. Draw diagram of excretory system in human beings and label Aorta, Vena cava, urinary bladder and urethra.
60. Name two dissolved substances which are absorbed in small intestine and completely or partially reabsorbed from the kidney tubule back into the blood.
61. What is the Cup shaped structure of nephron called? What happens there?
62. What is the other name for Artificial kidney? When is it required? How is it different from normal kidney?
63. On what factors does the amount of urine produced depend?
64. Differentiate between Ureter and Urethra.
65. Leaves of a potted plant were coated with Vaseline to block stomata. State three reasons why this plant will not remain healthy for long.
66. What is the major gas released by plants
    a) during the day
    b) during the night

    also explain why?
67. Give examples of solid, liquid and gaseous waste excreted by plants. How is this excretion brought about?
68. Draw labelled diagram for nephron.
69. What is translocation? Why is it essential for plants?

70. What does phloem transport?

71. Compare the functioning of alveoli in lungs and nephrons in kidney with respect to their structure and function.