1. Choose any one option from the given choices. (1x10=10)

(i) Water kept in earthen pot is cooler. This is because of
   (a) Condensation  
   (b) Sublimation
   (c) Evaporation    
   (d) Condensation and Sublimation

(ii) A pistil of flower consist of
   (a) Stigma and Style  
   (b) Style and ovary
   (c) Stigma, Style and Ovary
   (d) Stigma and Ovary

(iii) Which type of soil has maximum air spaces between particles?
     (a) Sandy  
     (b) Clayey
     (c) Loamy    
     (d) Mixture of sand and loam

(iv) Urine goes into the urinary bladder from kidneys through
     (a) Urethra  
     (b) Ureters
     (c) Urinary opening
     (d) Urethra and Ureters

(v) The process of fusion of the male and female gametes is called
    (a) Fertilisation  
    (b) Pollination
    (c) Reproduction
    (d) Seed formation

(vi) An image which can be taken on screen is termed as
     (a) Real image  
     (b) Virtual image
     (c) Erect image
     (d) Real and Virtual image

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(vii) Microorganisms act upon the dead plants to produce
   (a) Sand               (b) Humus
   (c) Wood               (d) Mushrooms

(viii) Blood vessels carrying oxygen rich blood
   (a) Artery             (b) Vein
   (c) Capillaries        (d) Artery and Vein

(ix) Which of the following statement is not correct?
   (a) Forests protect the soil from erosion
   (b) Plants and animals in forest are not dependent on each other
   (c) Forest influence the climate and water cycle
   (d) Soil helps forests to grow and regenerate

(x) The safety device based on the heating effect of electric current is
    (a) Battery            (b) Bulb
    (c) Fuse               (d) Cell
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   (i) Water kept in earthen pot is cooler. This is because of
       (a) Condensation            (b) Sublimation
       (c) Evaporation             (d) Condensation and Sublimation

   (ii) What does a pistil of flower consist of?
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(ix) Blood vessels which carry blood away from the heart
(a) Artery
(c) Capillaries
(b) Vein
(d) Artery and Vein

(x) The safety device based on the heating effect of electric current is
(a) Battery
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   (i) What does a pistil of flower consist of?
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   (iii) Which type of soil has maximum air spaces between particles?
       (a) Sandy                   (b) Clayey
       (c) Loamy                   (d) Mixture of sand and loam
   (iv) Blood is filtered in
       (a) Lungs                  (b) Kidneys
       (c) Ureters                (d) Urethra and Ureters
   (v) Which of the following is not a vegetative part of plant
       (a) Root                   (b) Stem
       (c) Leaf                   (d) Flower
   (vi) An image which can be taken on screen is termed as
       (a) Real image             (b) Virtual image
       (c) Erect image            (d) Real and Virtual image
   (vii) Microorganisms act upon the dead plants to produce
       (a) Sand                   (b) Humus
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(x) The safety device based on the heating effect of electric current is
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1. Give any two reasons which tell that loamy soil is good for growing crops. (1+1=2)
2. What are the four different factors which affect the soil profile? (½x4=2)
3. Rehman made an electric circuit using a battery, a bulb, a switch and connecting wires. When he put the switch in the ‘ON’ position the bulb did not glow. Write any two possible ways which can help Rehman in identifying the defects in the circuit (1+1=2)
4. Forests are called green lungs. Justify. (2)
5. Why blood is necessary for human body? Give any two reasons. (1+1=2)
6. What would be your observation about image formed in plane mirror when you look into it? Mention any four observations. (½x4=2)
7. Draw labelled diagram of soil profile. (2)
8. Every part of the forest is dependent on the other parts of the forest. Justify this statement with the help of an example of food chain. (1+1=2)
9. What is aquifer? How water is obtained from aquifer? (1+1=2)
10. Give any one example of each (a) Organic impurities (b) Inorganic impurities of water. Name any two water borne diseases. (1+1=2)
11. (a) How plants are benefited by seed dispersal? (2+1=3)
    (b) Which feature of some seeds help them to float in water?
12. Mention any three uses of Electromagnet. (3)
13. (a) Name the red pigment of blood which is present in RBC. What is its function? (1½+1½=3)
    (b) John fell down while playing and his knee got injured. Blood was coming out from the cut. After some time, he noticed that bleeding had stopped on its own. What could be the possible reason?
14. (a) What is drip irrigation? (1+2=3)
    (b) Mention any two ways by which we can minimize the wastage of water.

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15. Draw labeled diagram of human excretory system. (3)

16. (a) Rahul is observing his image in a plane mirror. The distance between the mirror and his image is 4m. If he moves 1m towards mirror then what is the distance between Rahul and his image? Give reason for your answer. (2+2=4)

(b) Write an activity which shows that sunlight consist of seven colours. (3+1=4)

17. (a) Draw well labeled diagram of formation of zygote in a plant. (3+1=4)

(b) How asexual reproduction takes place in Bryophyllum? (3+1=4)

18. (a) Explain any two factors which are responsible for depletion of water table. (3+1=4)

(b) The total amount of water on the earth is constant. Do you agree? Give reason for your answer. (3+1=4)

19. Define the following:- (1x4=4)
   (a) Infiltration
   (b) Weathering
   (c) Cross pollination
   (d) Decomposers

20. Write any one point of difference between the following:- (1x4=4)
   (a) Arteries and Veins
   (b) Clayey soil and Loamy soil
   (c) Unisexual flower and Bisexual flower
   (d) Concave and convex lens

21. Explain the construction and working of electric bell with the help of diagram. (4+1=5)

22. (a) If bar screens and grit and sand removal tank in waste water management plant is non-functional then what effect it will have in sewage treatment? (2+3=5)

   (b) Explain any three practices which minimize the clogging or blockage of drain pipes. (1½+1½+2=5)

23. (a) Which type of mirror can form a virtual image larger than the object? Write any two uses of same Mirror. (1½+1½+2=5)

   (b) Which type of mirror is used as side mirror in vehicles and why?

   (c) Write an activity to show that light travels in straight line.