

**Instructions to Students: Read all the questions thoroughly and write down the answers.**

**This question paper contains a total of 4 parts. They are**

- I. There will be 4 questions. Each question carries 4 marks. Answer all the questions.**
- II. There will be 6 questions. Each question carries 2 marks. Answer all the questions.**
- III. There will be 7 questions. Each question carries 1 mark. Answer all the questions.**
- IV. There will be 10 multiple choice questions each question carries ½ mark. Answer all the questions.**

**I. Answer all the questions. Each question carries 4 Marks 4 x 4 = 16**

1. Write a note on vegetative propagation in plants.
2. Draw and explain the internal structure of a flower?
3. What is sustainable development? How is it useful in nature resource management?
4. Describe the relation between taste and smell.

**II. Answer all the questions. Each question carries 2 Marks. 6 x 2 = 12**

5. Expand IUCN. What are the functions run by IUCN?
6. What is Cross pollination? Explain with an example.
7. What are the functions of the tongue?
8. What are the characters which Mendel selected for his experiments on pea plant?
9. Explain the utilisation of biomass for energy production called?
10. Why do number of organisms decrease as we move from producer to different level of consumers?

**I. Answer all the questions. Each question carries 1 Marks. 7 x 1 = 7**

11. Which country implemented restrictions on usage of water activities?
12. How do seed-free fruits develop?
13. Name the hormones involved in digestion.
14. What are the metals that pollute water?
15. What is D.N.A.? What is its chemical structure?
16. Why do we not recognise the taste of food properly when we have cold?
17. "What are the lungs of the world"?

**IV. Answer all the questions. Each question carries 1/2 Marks. 10 x 1/2 = 5**

18. What is the process which happens inside the body in sexual reproduction?
  - a. Internal fertilization
  - b. External fertilization
  - c. Pollination
  - d. None of these
19. Who determined the complete structure of DNA?

- a. James Watson      b. Shlidon & Shwan      c. Francis Crick      d. James Watson and Francis Crick
20. What is Mastication?  
a. Digest      b. Chewing      c. Coordinating      d. Performing the work
21. What vitamins are there in peas?  
a. Vitamin A & C      b. Vitamin K & E      c. B Complex      d. All
22. Which of the soil type does Kolleru Basin have?  
a. Red soil      b. Clay soil      c. Silt Soil      d. All
23. The number of physical chromosome pairs in each human cell is?  
a. 23      b. 11      c. 22      d. 46
24. Huge amount of toxic chemical leaks into the surroundings ecosystems because of \_\_\_\_\_  
a. Industries      b. mining      c. pesticides      d. All
25. Who is the father of 'White Revolution' ?  
a. Louis Pasteur      b. M.S. Swami Nathan      c. J.K. Kurien      d. None
26. Which of the following do plants not compete for?  
a. Water      b. Food      c. Space      d. All
27. Which of the following is not a variation in rose plant.?  
a. coloured petals      b. spines      c. tendrils      d. leaf margin