

GENERAL SCIENCE

Paper - II

(Biological Science)

Time : 2 1/2 Hrs. Max. Marks : 50

PART - A

TIME : 2 hrs

Marks : 35

SECTION - 1

NOTE : 1. Answer any four Questions from the following.

4X1=4

2. Each Question carries One mark.

1. Write the equation for photosynthesis which shows starting materials and end products.
2. What is your inference about experiments with aphids?
3. What is uremia? Write its symptoms?
4. All of our teeth are not same; they are differing in structure and function. Write the dental formula showing various teeth present in us.
5. Explain the BOD. How is it in the polluted water?
6. Each year, the earth loses about 36 million acres of forest to deforestation. Suggest two ways to conserve the forest.

SECTION - II

5 x 2 = 10

NOTE:

1. Answer any five questions from the following choosing at least TWO from each Group A and B

2. Each Question Carries TWO marks.

GROUP - A

7. What happens to a plant if the rate of respiration becomes more than the rate of photosynthesis?
8. Nowadays high blood pressure seems to be a big health problem. What are your suggestions to control it?
9. Draw the block diagram showing the air pathway of respiration?
10. Already we know that plant growth is also controlled by some chemicals like animals. Give the information about those chemicals in tabular form.

GROUP - B

11. Write the difference between Mitosis and Meiosis.
12. How does hunger pangs generate and suppress?
13. What are variations? How do they help organisms?
14. What are the causes for the greenhouse effect?

SECTION - III

NOTE : 1. Answer any **FOUR** Questions from the following choosing at last **TWO** from A group & B Group

2. Each Question carries **FOUR** marks.

4 X 4 = 16

GROUP-A

15. Observe the apparatus and write your answers to the following questions.



- Are you conduct this experiment is in dark or light? Why?
- What are your preparations before conducting this experiment?
- Which chemical do you use inside the bottle? Why?
- What is the inference of this experiment?

16. Write the differences between the photosynthesis and respiration.

17. What happens if we won't remove wastes from the body? Which question do you ask the doctor to keep healthy your excretory system?

18. Explain the way how plants get water by osmosis through root hair?

Group-B

19. How would you demonstrate the action of saliva on flour?

20. What is meant by Ecological pyramid? Explain the various types of ecological pyramids.

21. How sex determination takes place in human? Explain with an example?

22. Proper utilization of natural resources is the way to show gratitude to our nation. Can you suggest some approaches for Proper utilization of natural resources?

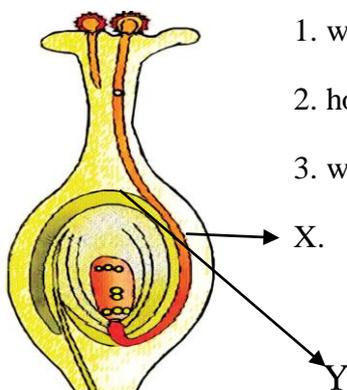
SECTION - IV

Note: 1. Answer any **ONE** Question from the following

2. This Question carries five marks

23. Draw a neat labeled diagram of human brain.

24. Observe the diagram and answer the following Questions



- What does this diagram represent?
- How many nuclei and cells are present in the embryo sac?
- Which cell of the embryo sac is diploid before fertilization?
- 'X' and 'Y' are indicating what?
- What is double fertilization? Where does it occur?

PART - B

Time: 30 Minutes

Marks: 15

Instructions

1. Answer all Questions
2. Each Question carries $\frac{1}{2}$ Mark.



1. What is the inference of the this experiment ?
A) oxygen librated in photosynthesis B) Light is necessary for the photsynthesis
C) chlorophyll is necessary for the photsynthesis D) CO2 librated in photosynthesis
2. What is the chemical name of vitamin 'D'.
A) Tocoferol B) calciferol c) phylloquinone D) Retinol
3. what is the cause for special smell of preserved idly and dosa dough .
A) Methanol B) Ethanol C) Carbon dioxide D) Water
4. What is the availability of oxygen at a height of 30 KM above sea level.
A) double at sea level B) one fifth at sea level C) one sixth of sea level D) one fourth of sea level.
5. Which of the following is eco friendly activity?
A) Smoking B) using bio fertilizers c) Hunting D) all of the above.
6. Which of the following is determining the type respiratory system?
A) Body size B) availability of water C) type of circulatory system. D) all of above.
7. Lymph means
A) solution B) Blood C) Water D) capillaries
8. The valve that present between left atrium and right ventricle can be named as _____
A) Pyloric sphincter B) bicuspid valve C) Tricuspid valve D) pulmonary valve
9. Which of the following is use as insecticide
A) Neem B) Opium C) Tobacco C) Coffee
10. ___ is centre for certain emotions such as anger ,happiness and pain.
A) Diencephalon B) Mid brain C) Cerebellum D) medulla oblongata
11. Which hormone controls the menstrual cycle .
A) Testosterone B) thyroxin C) Adrenaline D) Estrogen
12. Which of the following is not correct.
A) Stolons - jasmine B) Root-Dahlia C) Budding- yeast D) Bulb-Onion

13. Production of sperm cells begins from the age of about---

- A) 13 or 14 years B) 16 or 17 years C) 17 or 18 years D) 20 or 21 years

14. After having food, the P^H value become _____ in the mouth

- A) Decrease B) Increase C) no change D) can't identify

15. Which of the following is not vestigial organ in human

- A) Pinna B) Hair on skin C) Mammary glands D) none of the above.

16. cause for the disease "Minamata"

- A) Glyricidia B) Methyl alcohol C) Methyl mercury D) Methyl cyanide

17. The study about fossils is known as _____

- A) Paleontology B) Geology C) Biology D) Chemistry

18. _____ Is the Bio indicator of metal contamination in environmental monitoring.

- A) Lech B) Earthworm C) sparrow D) Fish

19.  Is indicates _____

- A) Natural Selection
B) Inheritance of acquired characters
C) Sex-linked traits D) Micro evolution

20. Suresh donate his books to junior. What it represents in 3R's.

- A) Reduce B) Reuse C) Recycle. D) All of the above.

21. Deforestation accounts for _____ percent of the world's greenhouse gas emissions.

22. According to the survey's _____ is major irrigation source in our state.

23. 1 ATP = _____ calories.

24. Detailed structure of DNA was proposed by _____

25. Stomach become empty totally within _____ hours.

Match the following :

Group-A		Group-B
1. Large intestine	()	A. Urochrome
2. Liver	()	B. sebum and fatty acids
3. Skin	()	C. Salts of calcium and magnesium
4. Kidney	()	D. Hilus
5. Resin	()	E. Pinus