

**MODEL QUESTION PAPER – BIOLOGY - 2023**

**STD: X**

**MARKS: 75**

**SUB: SCIENCE**

**TIME: 2.30hrs**

**PART-I**

**Choose the most suitable answer and write the code with corresponding answer (12×1=12)**

1. Krebs cycle takes place in  
a) chloroplast b) mitochondrial matrix  
c) Stomata d) inner mitochondrial matrix
2. The animals which give birth to young ones are  
a) Oviparous b) Viviparous c)Ovoviviparous d) All the above
3. Persons with \_\_\_\_ blood group are called “Universal Recipient”  
a) O b) AB c) A d) B
4. Vomiting Centre is found in  
a) medulla oblongata b) stomach c) cerebrum d) hypothalamus
5. Which one is referred as “Master Gland”?  
a) Pineal gland b) Pituitary gland c) Thyroid gland d) Adrenal gland
6. Which one of the following is an IUCD?  
a) Copper-D b) Oral pills c) Diaphragm d) Tubectomy
7. 9:3:3:1 ratio is due to  
a) Segregation b) Crossing over  
c) Independent assortment d) Recessiveness
8. The term Ethnobotany was coined by  
a) Khorana b) J.W. Harsbberger c) Ronald Ross d) Hugo de Vries
9. PusaKomal is a disease resistant variety of \_\_\_\_\_  
a) sugarcane b) rice c) cow pea d) maize
10. CHILD HELPLINE \_\_\_\_\_  
a) 101 b) 1091 c) 1098 d) 102
11. Excessive consumption of alcohol leads to  
a) Carcinoma b) Sarcoma c) Leukemia d) Lymphoma
12. All files are stored in the \_\_\_\_\_  
a) Folder b) box c) Pai d) scanner

## PART-II

Answer Any Seven of the following:

(7×2=14)

(Question number 22 is compulsory)

13. Write the reaction for photosynthesis?
14. Why is the circulation in man referred to as double circulation?
15. Differentiate between Medullated and non-medullated nerve fibre.
16. Bring out any two physiological activities of abscisic acid.
17. Name the two organisms which reproduce through budding.
18. What do you understand by the term phenotype and genotype?
19. State the importance of bio fertilizer.
20. What are the contributing factors for obesity?
21. How are e-wastes generated?
22. Draw the human brain diagram and label any two parts.
23. Which hormone is referred as “emergency hormone”? Give reason.

## PART- III

iii. Answer any seven of the following: (Question number 32 is compulsory) (7×4=28)

24. How does locomotion takes place in leech?
25. Differentiate: Aerobic and anaerobic respiration.
26. What is transpiration? Give the importance of transpiration.
27. (i) Which hormone is known as stress hormone in plants? Why?  
(ii) What is the role of estrogens in human body?
28. Explain the structure of chromosome.
29. Draw the structure of an ovule and label the parts.
30. Discuss the importance of biotechnology in the field of medicine.
31. a. Expand the term AIDS.  
b. Write the prevention and control of AIDS.
32. Enumerate the importance of forest.
33. (i) Define genetic engineering.  
(ii) Write the objectives of POSCO Act.

**PART-IV**

**Note. (i) Answer all the questions: (3×7=21)**

34.(a)(i) Explain the male reproductive system of male rabbit with labelled diagram. (6)

(ii) Write the dental formula of rabbit.(1)

**(OR)**

(b) (i) With neat labelled diagram explain the structure of neuron.(7)

35. (a) Write the events involved in the sexual reproduction of a flowering plant. (1)

i. Discuss the first event and write the types.(2)

ii. Mention the advantages and disadvantages of that event.(2+2)

**(OR)**

b. (i) Natural selection is a driving force for evolution – How? (6)

(ii) Who wrote the book “Origin of species”? (1)

36. (a) (i) Differentiate between the Systole and diastole. Explain the conduction of heart beat. (5)

(ii) Name the conditions when both the alleles are identical. (2)

**(OR)**

**(b)**(i) What is the importance of rain water harvesting? (4)

(ii) What is the approach of 4R? (2)

(iii) World “Cancer Day” is observed on \_\_\_\_\_. (1)

**\*\*\*\*ALL THE BEST\*\*\*\***

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