

F-4-A

Roll No.....

Total No. of Questions : ~~14~~+11]

[Total No. of Printed Pages : 8

XIIAPBIKD22

6904-A

ZOOLOGY

(Biology)

(New/Old Course)

Time : 1½ Hours]

[Maximum Marks : 35

NOTE :— The questions in the question paper are based on revised and pre-revised syllabus marked as "New Course" and "Old Course" respectively and candidates are advised to appear in the relevant course meant for them. Candidates who may attempt the questions partly from "New Course" and partly from "Old Course" will not be awarded. Candidates are also advised to record "New Course" or "Old Course" as the case may be, on the front page of the answer-book.

XIIAPBIKD22—6904-A (New)

Turn Over

F-4-A

(New Course)

Section-A

(Objective Type Questions/Do as directed)

1 each

1. Morphologically and genetically similar individuals produced as a result of asexual reproduction are known as

(Fill in the blank)

2. The probability of sons being colourblind from a normal father and a colourblind mother is :

(A) 25%

(B) 50%

(C) 75%

(D) 100%

(Choose the correct one)

3. Name the causative agent of Typhoid.

4. HIV stands for ?

Section-B

(Very Short Answer Type Questions)

2 each

5. Write down the functions of luteinizing hormone in human males and females.
6. Write short note on Vaccines.
7. Define recombinant DNA technology.

Or

Name a few important products of Biotechnology.

Section-C

(Short Answer Type Questions)

3 each

8. Draw a labelled diagram of saggital section of human female breast.
9. Explain the sex determination in honey bee.
10. What are Darwin's Finches ?
11. Differentiate between cell mediated and humoral immunity.
12. Write short note on Human Insulin.

Or

Discuss Bio-safety issues.

Section-D

(Long Answer Type Questions)

5 each

13. Define Gametogenesis. Explain in brief the various stages of spermatogenesis with diagrammatic representation.

Or

Describe the hormonal control of menstrual cycle in human females.

14. Why human genome is called as Mega Project ? Write down its goals and future implications.

Or

Describe the Hardy-Weinberg Principle. What are the conditions that maintain the Hardy-Weinberg Equilibrium ?

F-4-A

(5)

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XIIAPBIKD22—6904-A (Old)

Turn Over

F-4-A

(Old Course)

(Long Answer Type Questions)

5 each

1. Draw a labelled sketch of Human male reproductive system. How is oogenesis markedly different from spermatogenesis ?

Or

Name at least *five* important STD's (Sexually Transmitted Disease) and common techniques for their detection.

2. Define Hardy-Weinberg Principle. Explain at least *three* basic processes which change Hardy-Weinberg equilibrium and bring about variations at the genetic level.

Or

Name the chromosomal complement and effects of Down's syndrome and Patau's syndrome.

(Short Answer Type Questions)

3 each

3. Name the various barrier methods of contraception. Which one is most commonly used ?

4. State two points of difference between the mechanism of sex-termination in Birds and Humans.

5. Write down at least *three* points of difference between Non-specific and Specific Immunity. <https://www.jkboseonline.com>

6. Write a short note on Restriction Endonucleases.

(Very Short Answer Type Questions)

2 each

7. Write down the role of Sertoli Cells.

8. What are Vestigial Organs ? Give examples.

9. What is the significance of Vaccines ?

10. What do you mean by Cloning Vectors ?

(MCQ/Objective Type Questions/Do as Directed) 1 each

11. (i) Human Ovum is 'Alecithal'. (True/False)

(ii) Weismann proposed the theory of of germplasm.

(Fill in the blank)

(iii) Trisomy of 21st Chromosome causes :

(A) Klinefelter's syndrome

(B) Turner's syndrome

(C) Sickle cell anaemia

(D) Down syndrome (Choose the correct one)

(iv) Cancer of Epithelial cells is Carcinoma. (Agree/Disagree)

(v) Which of the following is celebrated as 'No Tobacco Day' ?

(A) May, 29

(B) March, 23

(C) July, 21

(D) May, 31 (Choose the correct one)