

**HSEIRKO - 13**  
**81020-**  
**ZOOLOG**  
**(Biology)**

Time : 1½ Hours + 15 Minutes extra to read the question paper]

[Maximum Marks:

**(Long Answer Type Questions)**

1. Explain the terms
  - (i) Sickle cell anaemia
  - (ii) Alkaptonuria.



Or

Explain in brief modern synthetic theory of evolution.

2. Define Spermatogenesis. With the help of graphic sketch explain the processes involved in spermatogenesis.

Or

What do you mean by 'Contraception'? Write down the preventive measures for sexually transmitted diseases.

**(Short Answer Type Questions)**

3. Write down the symptoms of Malaria.
4. What do you mean by Vaccine Production and its uses?
5. Write a short note on assisted reproductive technologies.
6. Write down how inheritance of hemophilia takes place in man.

HSEIRKO-13—81020-P  
D-20-P

Turn

### (Very Short Answer Type Questions)

Write a note on silkworm as an insect for human welfare.

2

What is Human Insulin ? Write down its uses.

2

What do you mean by Parturition ?

2

What is Hemophilia ? Why is it called Bleeder's disease ?

2

### (Objective Type Questions/M.C.Q.)

Do as directed

(i) ..... was the link between man and other primates. (Fill up) 1

(ii) Dealcoholism is the process of overcoming drinking, (Whether True/False) 1

(iii) Expand the term LSD. 1

(iv) Treponema pallidum is a :

(a) Bacterial agent

(b) Viral agent

(c) Protozoal agent

(d) Fungal agent

(Choose the correct one) 1

(v) Expand the term PKU. 1





No. ....  
Total No. of Questions : 11]

[Total No. of Printed Pages

**HSEIRKO - 13**

**81020-Q**

**ZOOLOGY**

**(Biology)**

Time : 1½ Hours + 15 Minutes extra to read the question paper

[Maximum M

**(Long Answer Type Questions)**

1. Define Spermatogenesis. With the help of graphic sketch explain processes involved in spermatogenesis.

Or

What do you mean by 'Contraception' ? Write down the preventive measures for sexually transmitted diseases.

2. What are Chromosomal Disorders ? Explain them in relation to Turner and Klinefelter's syndrome.

Or

Describe in brief the evolution of Man.

**(Short Answer Type Questions)**

3. Write a brief note on Amniocentesis.
4. What is DNA Finger Printing ? Write down its uses.
5. Write down the symptoms of Malaria.
6. What do you mean by Vaccine Production and its uses ?

HSEIRKO-13—81020-Q

( 2 )  
What do you mean by Parturition ?

What is Hemophilia ? Why is it called Bleeder's disease ?

What do you understand by Alcohol abuse ?

What are Biosafety issues ?

2  
2  
2  
2

### (Objective Type Questions/M.C.Q.)

Do as directed

(i) Treponema pallidum is a :

(a) Bacterial agent

(b) Viral agent

(C) Protozoal agent

(d) Fungal agent (Choose the correct one)

(ii) Expand the term PKU.

(iii) Ramapithecus was the link between man and other primates.

(Say yes/no)

(iv) The process by which a person overcomes drinking is known as .....

(Fill up)

(v) Those who specialize in viruses and deal how they infect are  
Mycologists.  
(Whether True/False)

Turn Over

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

**XIIRKN16  
11022-X  
ZOOLOGY  
(Biology)**

Time : 2 ½ Hours]

[Maximum Marks: 35

**(Long Answer Type Questions)**

5 each

1. Explain the structure of 'Human Male Reproductive System'. Illustrate your answer with a neat and labelled diagram.

*Or*

Define Fertilization. Briefly enlist the events that take place during Fertilization.

2. Name the Chromosomal disorders in humans. Explain any *two* of them in detail.

*Or*

Define Hardy Weinberg's principle. What is its significance ? Add a note on adaptive radiation.

**XIIRKN16-11022-X  
E-22-X**

Turn Over



**(Short Answer Type Questions)**

3 each

3. What is "Placenta". Write down its main functions.
4. Write a short note on "Ramapithecus".
5. Write down the causes of "Filariasis".
6. What is Cloning ? What is its significance ?

**(Very Short Answer Type Questions)**

2 each

7. Write *two* major functions of Testes and Ovary.
8. List down the differences between Homologous and Analogous organs.
9. Write down the symptoms of "Typhoid".
10. What do you mean by Recombinant DNA Technology ?

**(MCQ/Objective Type Questions)**

1 each

11. (i) Expand the terms MTP and STD.
- (ii) Monozygotic twins are ..... of their parents and ..... of each other. (Fill up)
- (iii) "Peripatus" is a connecting link between Annelida and Mollusca whether. (True/False)
- (iv) Write down the scientific name of Silk-worm.

KIRKN16-11022-X  
E-22-X

1 No. of Questions : 11]

[Total No. of Printed Pages : 3

# **IRKN16 022-Y OOLOGY iology)**

e : 2 ½ Hours]

[Maximum Marks: 35

(Long Answer Type Questions)

5 each

Explain the structure of 'Human Male Reproductive System'. Illustrate your answer with a neat and labelled diagram.

Or

Define Fertilization. Briefly enlist the events that take place during Fertilization.

Name the Chromosomal disorders in humans. Explain any *two* of them in detail.

Or

Define Hardy Weinberg's principle. What is its significance ? Add a note on adaptive radiation.

Turn Over

IRKN16-11022-Y  
-22-Y



**(Short Answer Type Questions)**

What is "Placenta". Write down its main functions.

Write a short note on "Ramapithecus".

Write down the causes of "Filariasis".

What is Cloning? What is its significance ?

**(Very Short Answer Type Questions)**

Write two major functions of Testes and Ovary.

Give points of difference between Satellite DNA and Repetitive DNA.

Define Immunity. Name its types.

What do you mean by "Microbial cloning"?

**(MCQ/Objective Type Questions)**

- (i) Expand the terms ZIFT and GIFT.
- (ii) Down's syndrome is ..... of chromosome. (Fill up)
- (iii) Fins and Flippers are homologous organs. (True/False)
- (iv) Name the protozoan which causes "Nosema" disease in honeybees.



Q77

Which of the following is not a longitudinal study?

Q78

Quota

Q79

Quasi-experiments

Q80

Quasi-experiments

Q81

Quasi-experiments

(Select the correct one)



( 3 )

(v) Which of the following is not a lymphoid tissue ?

- (a) Spleen
- (b) Appendix
- (c) Tonsils
- (d) Thymus

(Choose the correct one)



ARKN16-11022-Y  
E-22-Y



No. of Questions : 11]

[Total No. of Printed Pages :

**HSEIRKON1**  
**15321-A**  
**ZOOLOGY**  
**(Biology**

: 1 ½ Hours]

[Maximum Marks: 35]

**(Long Answer Type Questions)**

5 each

Define asexual reproduction, mention various methods of asexual reproduction. Describe any *three* of them.

*Or*

Define Spermatogenesis. Explain it with diagrammatic representation.

Explain the Inheritance pattern of Haemophilia and colour blindness in human beings.

*Or*

Describe Darwin's theory of Natural selection.

Turn Over

HSEIRKON17-15321-A

21-A

**(Short Answer Type Questions)**

3 each

Write a short note on 'MTP'.

Explain the mechanism of sex determination in birds.

What is Cancer ? Explain the preventive measures of Cancer ?

Write a short note on Genetic Engineering.

**(Very Short Answer Type Questions)**

2 each

Explain in brief the term Amniocentesis.

What is the significance of 'Human Genome Project' ?

What do you mean by Alcohol abuse ?

Write down the significance of cloning.

**(MCQ/Objective Type Questions)**

1 each

Do as Directed :

- (i) Give the full form of IVF
- (ii) The cranial capacity of *Homo sapiens* man is 1700 cc  
(True/False)
- (iii) The pair of chromosomes that are associated with sex determination are known as ..... (Fill in the blank)
- (iv) Who is known as the 'Father of Immunology' ?

KON17-15321-A



(v) The spread of cancerous cells to distinct sites is termed as :

- (a) Carcinogenes
  - (b) Metastasis
  - (c) Benign Tumor
  - (d) Malignant neoplasm
- (Choose the correct one)



**D-21-B**

Roll No.....

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

**HSEIRKON17**  
**15321-B**  
**ZOOLOGY**  
**(Biology)**

Time : 1 ½ Hours]

**[Maximum Marks: 35**

**(Long Answer Type Questions)**

5 each

1. Define asexual reproduction, mention various methods of asexual reproduction. Describe any *three* of them.

*Or*

Define Spermatogenesis. Explain it with diagrammatic representation.

2. Explain the Inheritance pattern of Haemophilia and colour blindness in human beings.

*Or*

Describe Darwin's theory of Natural selection.

Turn Over

**HSEIRKON17-15321-B**  
**D-21-B**



**(Short Answer Type Questions)**

3 each

3. Write a short note on 'MTP'.
4. Explain the mechanism of sex determination in birds.
5. What is Cancer ? Explain the preventive measures of Cancer ?
6. Write a short note on Genetic Engineering.

**(Very Short Answer Type Questions)**

2 each

7. Explain in brief the term Amniocentesis.
8. What do you mean by Adaptive radiations ?
9. Write down what do you mean by Dairy farming ?
10. Write down the significance of Gene therapy.

**(MCQ/Objective Type Questions)**

1 each

11. Do as Directed :

(i) Give the full form of GIFT

(ii) The cranial capacity of Neanderthal man was 1400 cc

(True/False)

(iii) Zoological name of silk moth is *Bombyx mori*. (Yes/No)

(iv) Kelnifetter's syndrome is due to .....of

chromosome No. .... (Fill in the blank)

SEIRKON17-15321-B

21-B

(v) Which one of the following products of apiculture is used in cosmetics and polishes ?

(a) Honey

(b) Oil

(c) Wax

(d) Royal Jelly

(Choose the correct one)





12<sup>th</sup>RKDO18

20304-X

ZOOLOGY

(Biology)

Time : 1½ Hours]

[Maximum Marks : 35

(Long Answer Type Questions) 5 each

1. What do you mean by Reproductive Health ? Write down the significance of Reproductive Health in a society.

*Or*

Describe the sequence of events from Zygote till the implantation of human blastocyst in the Uterus.

2. Explain Founder's effect and Bottleneck effect in brief.

*Or*

What is DNA-fingerprinting ? Who developed this technique ? Add a short note on principle of DNA-fingerprinting.

Turn Over

12<sup>th</sup>RKDO18-20304-X

D-4-X

(Short Answer Type Questions)

3 each

3. Draw a well labelled diagram of microscopic anatomy of testis.
4. Explain in brief Down's Syndrome.
5. Write a short note on color blindness in human beings.
6. Write down the causes of Filariasis.

(Very Short Answer Type Questions)

2 each

7. Define the terms Spermatogenesis and Oogenesis.
8. What do you mean by Pathogens and Parasites ?
9. What do you mean by 'Gene therapy' ?
10. What is Cloning ?

(Objective Type Questions/MCQ)

1 each

11. Do as directed :

- (i) Expand the term ZIFT and GIFT.
- (ii) Who amongst the following proposed the theory of origin of species by Natural Selection ?
  - (a) August Weismann
  - (b) Hugo de-Vries
  - (c) Charles Darwin
  - (d) Alfred Wallace

(Choose the correct one)



(iii) Alcohol is a "stimulant".

(Yes/No)

(iv) Less response of a drug to a specific dose with repeated use is called .....

(Fill in the blank)

(v) Formation of "Clone" of genetically identical cells derived by division of a single parent cell is called "Gene Cloning".

(True/False)



**D-4-Y**

Total No. of Questions : 11]

Total No. of Printed Pages : 3

**12<sup>th</sup>RKDO18**

**20304-Y**

**Zoology**

**(Biology)**

Time : 1½ Hours]

[Maximum Marks : 35

(Long Answer Type Questions)

5 each

1. What do you mean by Reproductive Health ? Write down the significance of Reproductive Health in a society.

*Or*

Describe the sequence of events from Zygote till the implantation of human blastocyst in the Uterus.

2. Explain Founder's effect and Bottleneck effect in brief.

*Or*

What is DNA-fingerprinting ? Who developed this technique ? Add a short note on principle of DNA-fingerprinting.

Turn Over

**12<sup>th</sup>RKDO18-20304-Y**

**D-4-Y**



( 2 )

**(Short Answer Type Questions)**

3 each

3. Draw a well labelled diagram of microscopic anatomy of testis.
4. Explain in brief Down's Syndrome.
5. Write a short note on color blindness in human beings.
6. Write down the causes of Filariasis.

**(Very Short Answer Type Questions)**

2 each

7. Define the terms Spermatogenesis and Oogenesis.
8. What is the significance of Vaccines ?
9. What do you mean by "DNA Recombinant Technology" ?
10. What is the significance of "Human Insulin" ?

**(Objective Type Questions/MCQ)**

1 each

11. Do as directed :

- (i) Expand the term MTP and GIFT.
- (ii) "Charles Darwin" proposed the concept of :
  - (a) Modern synthetic theory
  - (b) Human Genome Project
  - (c) Origin of Species
  - (d) None of these

(Choose the correct one)

Over

12<sup>th</sup> RKD018-20304-Y

D-4-Y

( 3 )

- (iii) Alcohol is a depressant/stimulant. (Choose the correct one)
- (iv) Name the tall annual herbs from which "Tobacco is obtained".
- (v) In 1996, creation of Dolly, a cloned sheep was the first  
mammal clone. (Yes/No)





**D-4-Z**

Roll No.....

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

**12<sup>th</sup>RKDO18**

**20304-Z**

**Zoology**

**(Biology)**

**Time : 1½ Hours]**

**[Maximum Marks : 35**

**(Long Answer Type Questions)**

**5 each**

1. What do you mean by Reproductive Health ? Write down the significance of Reproductive Health in a society.

*Or*

Describe the sequence of events from Zygote till the implantation of human blastocyst in the Uterus.

2. Explain Founder's effect and Bottleneck effect in brief.

*Or*

What is DNA-fingerprinting ? Who developed this technique ? Add a short note on principle of DNA-fingerprinting.

**Turn Over**

**12<sup>th</sup>RKDO18—20304-Z**

**D-4-Z**

3 each

(Short Answer Type Questions)

3. Draw a well labelled diagram of microscopic anatomy of testis.
4. Explain in brief Down's Syndrome.
5. Write a short note on color blindness in human beings.
6. Write down the causes of Filariasis.

2 each

(Very Short Answer Type Questions)

7. Define the terms Spermatogenesis and Oogenesis.
8. What is the significance of "Lac" ?
9. What do you mean by "Biosafety Issues" ?
10. What is the significance of "Vaccine Production" ?

1 each

(Objective Type Questions/MCQ)

11. Do as directed :

- (i) Expand the terms IVF and STD.
- (ii) The first theory of evolution was put forward by :
  - (a) August Weismann
  - (b) Jean Baptiste de Lamarck
  - (c) Alfred Russel Wallace
  - (d) Charles Darwin

(Choose the correct one)



(iii) Tobacco contains a volatile alkaloid called \_\_\_\_\_.

(Fill in the blank)

(iv) Humoral Immune System is made up of B lymphocytes.

(True/False)

(v) Retrovirus (a special type of RNA virus) is used as a vector in Gene therapy.  
(Yes/No)



12PRKDO18-20304-Z

**D-4-Z**