



BIOLOGY

BOOKS - NEW JYOTHI BIOLOGY (TAMIL ENGLISH)

CBSE QUESTIONS

Human Reproduction

1. a. When and where does spermatogenesis in a human male begin to take place?

b. With the help of schematic labelled diagrams, trace the development of mature spermatozoa in a human male?

c. Describe the structure of a human sperm.



Watch Video Solution

2. The events of the menstrual cycle are represented below. Answer the questions following the diagram.



i. State the levels of FSH, LH and progesterone

simply by mentioning high or low, around 13th and 14th day and 21st to 23rd day.

ii. In which of the above mentioned phases does the egg travel to the fallopian tube?

iii. Why is there no menstruation upon fertilisation?



View Text Solution

3. At what stage of life is oogenesis initiated in a human female? When does the oocyte complete oogenesis?



[Watch Video Solution](#)

4. Given below is an incomplete flow chart showing influence of hormones on gametogenesis in males. Observe the flow chart carefully and fill in the blanks A, B, C and D



[View Text Solution](#)

5. a. In which part of the human female reproductive system do the following events take place?

I - Release of 1st polar body. II - Release of 2nd polar body

III - Fertilisation IV - Implantation

b. From where do signals for parturition originate and what does maternal pituitary release for stimulating uterine contractions for child birth?



Watch Video Solution

6. Show diagrammatically the stages of embryonic development from zygote upto implantation in humans.



Watch Video Solution

Reproductive Health

1. After a successful in vitro fertilisation, the fertilised egg begins to divide. Where is this

egg transferred before it reaches the 8-cell stage and what is this technique named?



Watch Video Solution

2. Differentiate between tubectomy and vasectomy.



Watch Video Solution

3. A mother of one year old child wanted to space her second child. Her doctor suggested

CuT. Explain its contraceptive actions.



Watch Video Solution

Principles Of Inheritance And Variation

1. Mendel's which law of inheritance is universally acceptable without any exception?

State the law.



Watch Video Solution

2. $AaBb$ was crossed with $aabb$. What would be the phenotypic ratio of the progeny? Mention the term to denote this kind of cross.



Watch Video Solution

3. The following table shows the genotypes for ABO blood grouping and their phenotypes. Fill in the gaps left in the table.



View Text Solution

4. Sex determination is based on particular chromosomes in both birds and humans. State two points of difference between their mechanisms of sex determination.



Watch Video Solution

Molecular Basis Of Inheritance

1. Draw schematically a single polynucleotide strand (with at least three nucleotides).

Provide labels and directions.



Watch Video Solution

2. A policeman finds a very small piece of body tissue from the site of a crime and takes it to the forensic department.

- a. By which technique will they amplify the DNA collected from the tissue sample?
- b. Mention in a sequence, the three steps involved in each cycle of this technique.

c. What is the role of thermostable DNA polymerase in this technique?



Watch Video Solution

3. A few gaps have been left in the following table showing certain terms and their meanings. Fill up the gaps.



View Text Solution

4. $A_3 -_5 B$

$C_5 -_3 D$

AB and CD represent two strands of a DNA molecule.

When this molecule undergoes replication, a replication fork is formed between A and C in the above.

- i. Name the template strands for replication.
- ii. Using which strand as the template, will there be continuous synthesis of a complementary DNA strand?
- iii. Complementary to which strand will

Okazaki segments get synthesised.

iv. What are template strands and Okazaki pieces?

v. In which direction is a new strand synthesised?



Watch Video Solution

5. In F. Griffith's experiment, how did the nonvirulent strain of streptococcus pneumoniae become virulent?



Watch Video Solution

Evolution

1. Study the figures (a) and (b) given below and answer the questions given after the graphs.



- i. Under the influence of which type of natural selection would graph (a) become like graph (b)?
- ii. What could be the likely reasons of new variations arising in the population?

iii. Who suggested natural selection as a mechanism of evolution?



View Text Solution

2. How did Louis Pasteur successfully demolish the popular theory of spontaneous generation?



Watch Video Solution

3. How is the 'sixth episode of extinction' of species on earth, now currently in progress, different from the five earlier episodes?. What is it due to? Explain the various causes that have brought about this difference.



Watch Video Solution

4. Stanley Miller and Harold C Urey performed an experiment by recreating in the laboratory the probable condition of the atmosphere of

the primitive earth.

- i. What was the purpose of the experiment?
- ii. In what forms was the energy supplied for the chemical reactions to occur?



Watch Video Solution

5. What are the evidences for evolution?



Watch Video Solution

Human Health And Disease

1. Mention any two measures for prevention and control of alcohol and drug abuse among adolescents.



Watch Video Solution

2. Given below are pairs of disease and causative organisms. Which one out of these is not a matching pair and why?

Filariasis : Wuchereria

Ringworm : Ascaris

AIDS : Human Immuno Virus

Malaria : Plasmodium



Watch Video Solution

3. i. In which disease is there an uncontrolled division of cells resulting in formation of tumours? How is this disease detected?

ii. How do interferons help in controlling the disease?



Watch Video Solution

4. What is metastasis ?



Watch Video Solution

5. Why is using tobacco in any form injurious to health? Explain.



Watch Video Solution

Microbes In Human Welfare

1. You have been deputed by your school Principal to train local village in the use of biogas plant. With the help of a labelled sketch explain the various parts of the biogas plant.



Watch Video Solution

2. How are biofertilisers different from fertilisers such as NPK that we buy from the

market? Justify the role of rhizobium as a biofertiliser.



Watch Video Solution

3. Bacteria that convert milk into curd play two other beneficial roles. What are they?



Watch Video Solution

4. What are 'flocs'? State their role in effluent treatment and their ultimate fate in sewage

treatment tank.



Watch Video Solution

Biodiversity And Conservation

1. In the Pie charts (a) and (b) drawn below to show the global animal diversity, which groups of animals would you name and write on the areas shaded black in (a) and (b). In which kind of habitat would you find these groups of animals?



a. Invertebrates b. Vertebrates



View Text Solution

2. Amazonian rain forests have the greatest biodiversity on earth. List any two hypotheses that are proposed by the biologists to account for the greater biological diversity.



Watch Video Solution