



# BIOLOGY

## BOOKS - GURUKUL BOOKS & PACKAGING BIOLOGY (HINGLISH)

JULY 2017

### Section I Botany

1. The biological scissors of DNA are \_\_\_\_\_

A. ligases

B. polymerases

C. endonucleases

D. transcriptases

**Answer: C**



**View Text Solution**

2. Vijaya, padma, kanti and Jayanti are high yielding varieties of \_\_\_\_\_

A. wheat

B. jowar

C. sugarcane

D. rice

**Answer: D**



**Watch Video Solution**

3. Mitochondria are regarded as semiautonomous organelles, due to the presence of \_\_\_\_\_

A. Cristae

B. RNA

C. DNA

D.  $F_1$  particles

**Answer: C**



**Watch Video Solution**

**4. Which of the following is mainly responsible for ozone depletion ?**

A. CFCs

B. Hydrocarbons

C. Carbon monoxide

D. Carbon dioxide

**Answer: A**



**Watch Video Solution**

5. The process of formation of partially decomposed organic matter is called \_\_\_\_\_

A. fragmentation

B. leaching

C. catabolism

D. humification

**Answer: D**



**Watch Video Solution**

**6.** The number of adenine molecules in a given DNA segment is 25 and the number of

cytosine molecules is 45, the total number of nucleotides in the segment is \_\_\_\_

A. 70

B. 140

C. 90

D. 50

**Answer: B**



**View Text Solution**

7. The microbial source of vinegar is \_\_\_\_\_

A. *Aspergillus niger*

B. *Rhizopus arrhizus*

C. *Acetobacter aceti*

D. *Streptomyces venezuelae*

**Answer: C**



**Watch Video Solution**



8. what is heterocyst ?



[Watch Video Solution](#)

9. What are plasmids ?



[Watch Video Solution](#)

10. Why is chlorophyll-a called an essential pigment?



[Watch Video Solution](#)

## 11. GLOBAL WARMING



[Watch Video Solution](#)

12. Answer each question in 'one ' sentence only :

Given the meaning of Nif gene.



[Watch Video Solution](#)

**13.** Answer each question in 'one ' sentence only :

Name the aquatic fern commonly used paddy field as a biofertilizer.



**Watch Video Solution**

**14.** Sketch and label ultrastructure of chloroplast.



**Watch Video Solution**

**15.** Attempt any TWO of the following :

(i) Give the advantages of biogas.



**Watch Video Solution**

**16.** Give the names of two insect resistant crop varieties.



**Watch Video Solution**

**17.** Enlist causes of deforestation.





[Watch Video Solution](#)

**18.** Attempt any TWO of the following :

Give floral adaptations of entomophily.



[Watch Video Solution](#)

**19.** Attempt any TWO of the following :

(i) Describe the Wobble hypothesis .



[View Text Solution](#)

**20.** The connecting link between glycolysis and Krebs cycle is



**Watch Video Solution**

**21.** Attempt any TWO of the following :

Give the diagrammatic representations of ETS.



**View Text Solution**

**22.** Sketch and label lytic cycle.



**View Text Solution**

**23.** What is Neo-Mendelian genetics ? Describe quantitative inheritance controlled by two pairs of genes.



**View Text Solution**

**24.** Enlist advantages and disadvantages of cross pollination. Add a note on pollination mechanism in salvia.



**View Text Solution**

## Section II Zoology

1. Overproduction is the principle of

A. Lamarckism

B. Theory of organic evolution

C. Panspermia theory

D. Modern theory of evolution

**Answer: B**



**Watch Video Solution**



2. Myopia is an example of \_\_\_\_

- A. Complete sex-linkage
- B. incomplete sex-linkage
- C. recombination
- D. crossing over

**Answer: A**



**Watch Video Solution**

3. Infectious stage of Plasmodium is

A. Trophozoite

B. Sporozoite

C. Cryptozoite

D. Metacercaria

**Answer: B**



**Watch Video Solution**

4. Which of the following is a chemical transmitter in synapse of neurons.

A. Cholesterol

B. A.T.P

C. Cholinesterase

D. Acetylocholine

**Answer: D**



**Watch Video Solution**

5. The external layer of connective tissue sheath of human testis is

A. tunica vasculosa

B. tunica vaginalis

C. tunica granulosa

D. tunica albuginea

**Answer: D**



**Watch Video Solution**

6. Glucose is taken back from glomerular filtrate \_\_\_

A. along with concentration gradient

B. against concentration gradient

C. by simple diffusion

D. by tubular secretion

**Answer: A**



**Watch Video Solution**

7. Pituitary dwarfism is treated with gene therapy by \_\_\_\_

- A. Human insulin
- B. Tissue growth factor-Beta
- C. Tissue plasmogen activator
- D.

**Answer: D**



**Watch Video Solution**

**8.** Answer the following questions only in 'one sentence each :

(i) Mention the first vaccine developed against any human diseases.



**Watch Video Solution**

**9.** Name the two types of maps generated by HGP.



**Watch Video Solution**

**10.** Answer the following questions only in 'one sentence each :

What is a 'syndrome ' ?



**Watch Video Solution**

**11.** Answer the following questions only in 'one sentence each :

Name the type of T-lymphocyte which secretes perforins ?



**Watch Video Solution**



**12.** What is the full form of IVF ?



**Watch Video Solution**

**13.** Answer the following questions only in 'one sentence each :

What is protobiogenesis ?



**Watch Video Solution**

**14.** Sketch and label the ' Structure of Malpighian body'.



**Watch Video Solution**

**15.** Attempt any TWO of the following .

(i) Give reason - Archaeopteryx is called connect ing link between reptiles and birds'/



**Watch Video Solution**

**16.** Attempt any TWO of the following .

Summar the process of vaccine production .



**Watch Video Solution**

**17.** Write a short - note on 'lac culture .



**Watch Video Solution**

**18.** Attempt any TWO of the following .

write the help of a suitable example, explain

the concept of 'commensalism.



**Watch Video Solution**

**19.** Classify the chromosomes on the basis of position of centromere.



**Watch Video Solution**

**20.** Attempt any TWO of the following :

Give the symptoms of typhoid fever and draw a labelled diagram of its causal organism.



[Watch Video Solution](#)

**21.** With the help of suitable diagrams, explain how the age structures determine the trend of population ?



[Watch Video Solution](#)

**22.** Sketch and label the T.S. of the thyroid gland.



[View Text Solution](#)

**23.** Describe the T.S. of human testis and explain the process of spermatogenesis.



**View Text Solution**

**24.** Describe the conducting system of human heart.



**Watch Video Solution**