



# BIOLOGY

## BOOKS - ARIHANT PUBLICATION

### CHSE ODISHA (EXAMINATION PAPER - 2019)

#### Section A Botany

1. Fill in the blanks: The most common and abundant greenhouse gas is \_\_\_\_\_

A. methane

B. CFC

C. carbon dioxide

D. nitrous oxide

**Answer: C**



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2. Nocturnal flowers like *Nyctanthes* attract insects by their .....

A. colour

B. nectar

C. scent

D. edible sap

**Answer: C**



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**3.** Fill in the blanks selecting the appropriate terms given under each bit:

The example of start codon is .....

A. UAA

B. UGA

C. UAG

D. AUG

**Answer: D**



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**4. Fill in the blanks:**The phenomenon of single gene contributing to multiple phenotypic traits is called \_\_\_\_\_

A. pleiotropy

B. codominance

C. Incomplete dominance

D. polygenic inheritance

**Answer: A**



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**5. Fill in the blanks: Fermentation of milk sugar**

**,\_\_\_\_\_ is done by Lactobacillus ..**

A. glucose

B. fructose

C. sucrose

D. lactose

**Answer: D**



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6. Correct the statement of each bit, if necessary, by changing the underlined word

only:

Carnivores are always primary consumers.



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7. Correct the statement of each bit, if necessary, by changing the underlined word only:

Yeasts generally reproduce asexually by fission.



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8. Correct the statement of each bit, if necessary, by changing the underlined word only:

Nutritive tissue of a fertilized egg in angiosperms is embryo.



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9. Correct the statement of each bit, if necessary, by changing the underlined word only:



Mutation that completely eliminates a gene is called silent mutation.



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**10.** Correct the statement of each bit, if necessary, by changing the underlined word only:

In tissue culture, amorphous mass of thin-walled parenchymatous cells developing from proliferating cells is called explant.



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**11.** Write notes with 2 to 3 important points :

Ecological pyramid



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**12.** Write notes with 2 to 3 important points :

Population density attributes



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**13.** Write notes on any three of the following,  
each with 2 to 3 important points :

Sporulation .



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**14.** Write notes with 2 to 3 important points :  
Outbreeding devices



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**15.** Write notes on any three of the following, each with 2 to 3 important points :

Single-cell protein



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**16.** Write notes on any three of the following each with 2 to 3 important points :

tRNA



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**17.** Differentiate between the following with 2 to 3 important points : Parthenocarpy and Parthenogenesis



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**18.** Differentiate between any one pair of the following with 3 or 4 important points :  
Habitat and Niche .



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**19.** Differentiate between the following with 2 to 3 important points : Somatic embryogenesis and Somatic hybridization



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**20.** Answer within 200 words : Give a structure of a typical pollen grain and its pre- and post - pollination changes .



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**21.** Describe the process of DNA replication.



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**22.** Answer any two questions (restrict each answer within 200 words):

Describe the structure of a mature human sperm with the help of a well-labelled diagram.



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**23.** Answer within 200 words : Discuss how waste water treatment can be done .



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## Section B Zoology

**1.** What is the name of the scientist who cloned a sheep named Dolly?



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2. Colostrum is rich in which type of antibody?



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3. Graafian follicle is observed in the ovary of

A. rohu

B. Amphioxus

C. salamander

D. human

**Answer:**



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4. Which one is not terminal birth control method ?

A. Vasectomy

B. Tubectomy

C. Hysterectomy

D. Copper-T

**Answer:**





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5. What is the diploid chromosome number in a person suffering from down syndrome ?

A. 45

B. 46

C. 47

D. 48

**Answer:**



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6. Fill in the blanks with correct answer(s)/

Correct the underlined portion of the sentences:

Plasmodium vivax causes cerebral malaria.



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7. Fill in the blanks with correct answer(s)/

Correct the underlined portion of the sentences:

The full form of ELISA is .....



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8. Fill in the blanks with correct answer(s)/

Correct the underlined portion of the sentences:

Cancer of muscle is named as .....



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9. Fill in the blanks with correct answer(s)/

Correct the underlined portion of the

sentences:

Recapitulation theory was postulated by

.....



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**10.** Correct the underlined portion of the sentence:

In honeybee, the process of development of female bee without fertilization is termed as swarming.



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**11.** Answer any three of the following (restrict each answer to 2 or 3 important sentences)

What is HIV?



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**12.** What is Humulin ?



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**13.** What is tubectomy ?



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**14.** What is fossil ?



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**15.** What is antibody ?



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**16. Write a note on Queen bee ?**



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**17. Differentiate between with 3 to 4 important points:**

**Amoebiasis and Filariasis**



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**18.** Different the following (Restrict each answer three to four important sentences):

Homologous organ and Analogous organ



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**19.** Differentiate between of the following  
t- lymphocyte and B- lymphocyte



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**20.** Write notes on any two of the following:

Biochemical origin of life.



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**21.** Write notes on any two of the following:

Turner syndrome.



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**22.** Write notes on any two of the following:

Human male reproductive system



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**23.** Write notes on any two of the following:

Spermiogenesis.



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**24.** Illustrate in detail the process of spermatogenesis in human.



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**25.** What is sex-linked inheritance? Discuss how sex-linked gene inheritance occurs in human, giving two examples.



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**26.** Describe briefly recombinant DNA technology.



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