



# BIOLOGY

## BOOKS - MODERN PUBLICATION

### SAMPLE PAPER 2016

#### Exercise

1. During conduction of nerve impulse, what causes repolarisation of nerves ?

A. Efflux of potassium ions

B. Influx of both sodium and potassium ions

C. Influx of sodium ions

D. Efflux of sodium ions

**Answer: A**



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2. Which one of the following is not included under in-situ conservation ?

A. Zoological Garden

B. Biosphere reserve

C. National Parks

D. Wildlife Sanctuary

**Answer: A**



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3. During which stage of oogenesis the number of chromosomes is reduced to half?

A. Meiosis-I

B. Division of secondary oocyte

C. Formation of first polar body

D. Formation of second polar body

**Answer: C**



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4. In which type of chromosomal aberration a submetacentric chromosome may be converted to a metacentric chromosome ?

A. Paracentric Inversion

B.

C. Deletion

D. Duplication

**Answer: B**



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5. Choose the correct answer from the choices given under each bit.

Which antibody initiates allergic reactions ?



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6. The yellow coloured milk secreted by mother just after childbirth is called neonatal milk.



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7. Increased algal bloom in pond and lake due to excess of nutrients is a phenomenon called biological magnification.



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8. Fill in the blanks with correct answer(s)/correct the underlined portion of the sentence :

FSH and LH are selected by \_\_\_\_\_ endocrine gland.





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9. Fill in the blanks with correct answer(s)/correct the underlined portion of the sentence :

Urea is synthesized in the \_\_\_\_\_ of man.



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10. State the cause and symptoms of Filariasis.



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**11. What is Bee wax ?**



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**12. What are benign and malignant tumours ?**



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**13. State the role of Insulin.**



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**14.** What is Autonomic Nervous System ?



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**15.** State the function of yolk.



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**16.** (Restrict to 2 or 3 important sentences).

What are interferons ?



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**17.** Differentiate between :Renewable and non-renewable resources.



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**18.** Differentiate between : Herbicides and Pesticides.



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**19.** Differentiate between asexual reproduction and sexual reproduction.



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**20.** Differentiate between : B-lymphocytes and T-lymphocytes



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**21.** What do you understand by Reflex Action ?



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22. Give an account of the human male reproductive system.



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23. Explain the chromosomal basis of sex-determination in animals.



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**24. Write notes on : Ozone depletion**



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**25. Write notes on : Feedback mechanism in hormone action**



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**26. Write notes on : Diencephalon**



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**27.** Write a note on barrier and surgical method of birth control.



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**28.** The process of physical removal of anthers is called

A. emasculation

B. mass selection

C. Introduction

D. mutation

**Answer:**



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**29.** Fill in the blanks:Yeast Acetobacter are both involved in the production of \_\_\_\_\_ from carbohydrate.

A. pencillin

B. citrate



C. methane

D. vinegar

**Answer:**



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**30.** The hormone secreted from the aleurone layer of maize seed during germination is \_\_\_\_\_

A. Florigen

B. Gibberellic acid

C. Ethylene

D. Abscisic acid

**Answer:**



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**31.** If a cell is placed in \_\_ solution, then solvent enters into the cell by endosmosis

A. Hypertonic

B. Isotonic

C. Hypotonic

D. Isothermic

**Answer:**



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**32. Primary consumers are always**

A. Producers

B. Carnivores

C. herbivores

D. omnivores

**Answer:**



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**33.** In a cross between red and white flowered plants ,  $F_1$  - hybrids are pink. This is called quantitative dominance



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**34.** Correct the statements of each bit, if necessary, by changing the underlined word(s) only :

Ginger plant is an example of whole plant senescence.



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**35.** Correct the statements of each bit, if necessary, by changing the bracketed word(s) only :

During cellular respiration, (glycolysis) takes place in mitochondria.



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**36.** The pioneer community in hydrosere is submerged plants.



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**37.** Write notes with 2 to 3 important points

*Bacillus thuringiensis*



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**38.** Write notes any four of the following each with 2 to 3 important points:

Thigmonasty



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**39.** Write notes any four of the following each with 2 to 3 important points:

Seed dormancy





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**40.** Write notes any four of the following each with 2 to 3 important points:

Oxidative decarboxylation



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**41.** Write notes any four of the following each with 2 to 3 important points:

Symbiotic Nitrogen fixation



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**42.** Write notes any four of the following each with 2 to 3 important points:

Respiratory quotient



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**43.** Write notes any four of the following each with 2 to 3 important points:

Adaptation to submerged hydrophytes



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**44.** Write notes any four of the following each with 2 to 3 important points:

Central dogma



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**45.** Differentiate between any of two pairs of the following, each write with 2 to 3 important points:

Apoplast and Symplast



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**46.** Differentiate between any of two pairs of the following, each write with 2 to 3 important points:

Vernalization and Photoperiodism



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**47.** Differentiate between any of two pairs of the following, each write with 2 to 3 important

points:

Diffusion and Imbibition



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**48.** Differentiate between any of two pairs of the following, each write with 2 to 3 important points:

Monohybrid cross and Dihybrid cross



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**49.** Discuss the mechanism of stomatal movement.



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**50.** Describe Griffith's experiments of transformation.



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**51.** Give an account of  $C_3$  cycle.



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**52. Describe recombinant DNA technology**



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