



# BIOLOGY

## BOOKS - MODERN PUBLICATION

### SAMPLE PAPER 2015

#### Exercise

1. Which function (s) is / (are) controlled by corpora quadrigemina?

A. Both vision and auditory

B. Heart beat

C. Auditory reflex

D. Both vision and olfactory

**Answer: A**



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2. Which is not associated with vasopressin?

A. Diabetes insipidus

B. Diabtetes mellitus

C. Tabular reabsoption

D. Vaso constriction

**Answer: B**



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**3. Which organ's outer covering is tunica albuginea?**

A. Brain

B. Kidney

C. Ovary

D. Testis

**Answer: C::D**



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4. Through which vector is wuchereria bancrofti transmitted ?

A. Tse tse fly

B. Culex

C. Aedes

D. Anopheles

**Answer: B**



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5. Which chromosome-linked genes do cause the genetic metabolic Phenylketonuria (PKU)?

A. X-linked gene

B. Y-linked gene

C. Somatic recessive gene

D. Somatic dominant gene

**Answer: C**



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

L.S.D. is a natural \_\_\_\_\_ drug.



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7. The genetic ratio in F-generation of Mendel's monohybrid cross is 9 : 3 : 3 : 1.



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

The hormone \_\_\_\_\_ stimulates the secretion of milk.



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9. Three primary germ layers are formed during morula stage of embryonic development.



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10. How AIDS can be prevented ?





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**11.** How does asexual reproduction take place in sponges?



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**12.** What are the sources of radioactive pollution ?



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**13.** Write the possible causes of female infertility in relation to ovulation.



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**14.** What are restriction enzymes ? Mention their functions in recombinant DNA technology.



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**15.** Write the symptoms of Down's syndrome.



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**16.** What is biosphere reserve? Mention its zones.



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**17.** What is fertilization ? In man, where does it take place ?



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**18.** Differentiate between : Insulin and Glucagon



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**19.** Differentiate between : Inversion and Translocation



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**20.** Differentiate between : Corpus callosum and corpus luteum.



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**21.** Differentiate between binary fission and multiple fission.



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**22.** Explain the mechanism of conduction of impulses along nerve fibres.



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**23.** What is sex-linked inheritance?



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**24.** What is immunity ? Give an account of cell-mediated immunity.



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**25.** Write notes on :Law of independent assortment



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**26.** Write notes on : Oogenesis



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**27. Write notes : Social life of honeybees**



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**28. Write notes: Biomagnification**



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**29. Fill in the blanks:When two organisms live with mutual benefit, it is called \_\_\_\_\_.**



A. Symbiosis

B. Parasitism

C. Autotrophism

D. Saprophytism

**Answer: B**



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**30.** Fill in the blanks: To form a continuous DNA molecule, the enzyme \_\_\_\_\_ joins okazaki fragments.

A. Primase

B. Polymerase

C. Helicase

D. Ligase

**Answer: A**



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**31. A free-living nitrogen-fixer is**

A. Rhizobium

B. Phosphobacteria

C. Azotobacter

D. Escherichia

**Answer: A::B::C**



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**32.** In coconut leaves, \_\_\_\_\_ type of senescence is seen.

A. Simultaneous

B. Sequential

C. Whole plant

D. Irregular

**Answer: A**



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**33.** In chlorophyll molecule, \_\_\_\_\_ is a component.

A. Magnesium

B. Iron

C. Sulphur

D. Manganese

**Answer: A**



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**34. Correct the statements :**

The first stable product of  $CO_2$  fixation in  $C_3$  plants is PEP.



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**35.** In ethyl alcohol production, the unicellular fungus, *Penicillium* is used.



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

The movment of leaves of touch-me-not plant induced by touch is called thermonasty.



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

The term 'gene' was coined by deVries in the year 1909.



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**38.** Write note on

Red drop



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### **39. Decomposers**



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### **40. Write note on**

Quantitative inheritance



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**41. Write note on**

tRNA



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**42. Write a short note on secondary treatment  
of sewage.**



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**43.** Write note on

Seed germination factors



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**44.** Write note on

Plasmolysis



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**45.** Write note on

Transpiration - a necessary evil



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**46.** DISTINGUISH BETWEEN : Food chain and  
food web



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**47.** Differentiate between

Phototropism and geotropism



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**48.** Differentiate between

Hydrosere and Xeresere



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**49.** Differentiate between

Diffusion and Imbibition



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**50.** Describe initiation step of translation in prokaryotes.



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**51.** Discuss the cohesion-tension theory of ascent of sap.



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**52.** Describe the physiological effects of auxin.



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**53.** Give an account of glycolysis.



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