



# BIOLOGY

**BOOKS - UNITED BOOK HOUSE**

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PAPER**

## Exercise

1. Select the correct pair from the following and write it-

A. Hypothalamus-Memory

B. Ventricles of brain-Corpus Callosum

C. Medulla Oblongata-Sleep and waking  
centre

D. CSF-Neurocoel

**Answer:**



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2. Find out the correct sequence from the following-

A. 1. Pituitary → TRH → Thyroid →

Thyroxine

B. 2. Pituitary → CRH → Adrenal →

Adrenaline

C. 3. TRH → TSH → Pituitary →

Thyroid

D. 4.CRH → Pituitary → ACTH →

Adrenal,

**Answer:**



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3. The petals of sunflower open up during intense sunlight and close during sunset, Indetify the type of movement found in the plant-

A. Photonasty

B. Thermonasty

C. Hydrotaxis

D. Thermotaxis

**Answer:**



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**4.** Select the Post-mitotic Phase from the following-

A.  $G_1$

B.  $G_2$

C. S

D. M

**Answer:**



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**5. Determine the correct pair-**

A. Grafting-Lichen

B. Binary fission-Amoeba

C. Sporulation-Hydra

D. Zoospore-Mucor

**Answer:**



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**6.** Choose which part of the flower grows into seed-

A. 1.Anther

B. 2.Sepals

C. 3.Ovule

D. 4.Ovary

**Answer:**



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7. Calculate the ratio of tall and dwarf offspring formed by cross between  $Tt$  and  $tt$ -

A. 1 : 2



B. 1 : 1

C. 1 : 2 : 1

D. 9 : 3 : 3 : 1

**Answer:**



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**8.** Assess how many types of genetically different daughter cells are produced in the  $F_2$  gen, of Mendelian dihybrid cross-

A. 4

B. 6

C. 9

D. 16

**Answer:**



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**9.** Select which of the following Haemophillia disease is linked to-

A. Y-Linked

B. Nongeneric

C. Autosomal

D. X-Linked

**Answer:**



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**10.** Determine which ancestral form of modern horse originated in the Miocene epoch-

A. Pliohippus

B. Mesohippus

C. Merichippus

D. Hyracotherium

**Answer:**



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**11.** A terrific forest fire struck Amazon recently. Identify which of the following best explains the situation faced by the wild life there-

A. Variation

B. Natural selection

C. Inheritance of acquired character

D. Origin of new species

**Answer:**



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**12.** Choose which of the following terms is applicable for swim bladder in fish-

A. Vestigial organ

B. Analogous organ

C. Hydrostatic organ

D. Homologous organ

**Answer:**



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**13.** Which of the following is the  $N_2$  fixing symbiotic bacteria present in the root-

A. Azotobacter

B. Pseudomonas

C. Rhizobium

D. Nitrosomonas

**Answer:**



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**14. Which pf the following is not a greenhouse gas ?**

A.  $SO_2$

B.  $CH_2$

C. CFC

D.  $N_2O$

**Answer:**



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**15.** Determine from the following the disease associated with water pollution-



A. Typhoid, Hepatitis B, Cholera

B. Asthma, Polia, Diarrhoea

C. Hepatitis A, Typhoid, Cholera

D. Bronchitis, Tuberculosis, Hepatitis.

**Answer:**



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**16.** The part of the eyeball controlling the diameter of pupil is\_\_\_\_\_.



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17. Meiosis occurs in \_\_\_\_\_ cells in ferns to produce spores,



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18. Father's \_\_\_\_\_ allosome combined with any one of the mother's allosoms to give rise a male child.



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19. The no. of digits in each fore limbs of Mesohippus is\_\_\_\_\_.



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20. \_\_\_ is conserved in Kaziranga N.P.



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21. \_\_\_ can damage statues and buildings made of marbles and limestone.



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**22.** Decide whether the following statements are true or false

The covering of brain and Spinal Cord is meninges.



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**23.** Decide whether the following statements are true or false

Thymine is not found in RNA.



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**24.** Decide whether the following statements are true or false

All dwarf and tall pea plants are always pure in character.



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**25.** Decide whether the following statements are true or false

The mature RBC of camel is anucleated and oval.



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**26.** Decide whether the following statements are true or false

Phyllogeny repeats ontogeny.



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**27.** Decide whether the following statements are true or false

Insulin is secreted from the alpha cells of Islets of Langerhans.



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**28.** Choose the odd one and write it:

Myopia,      Protanopia,      Hypermetropia,  
Presbyopia



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29. Why is the movement of the leaflets of Indian telegraph plant called turgor movement?



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30. A pair of related terms is given below. On the basis of relationship in the first pair write the suitable word in the gap of second pair.

Leaf: Bryophyllum:: Stem:\_\_\_\_\_.





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**31.** Which is the exception to Mendel's first law?



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**32.** Which reptile has an evolved four chambered heart?



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**33.** Name an amino acid produced in the experiment by Miller and Urey.



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**34.** Among the following four terms one includes the other three. Find it out and write it.

Poaching, global warming, reduction in biodiversity, over exploitation



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**35.** For the recovery of which plant JFM was first introduced and in which forest?



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**36.** Explain the interrelationship among FSH, Graafian follicle and oestrogen.



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**37.** Distinguish between binocular vision and monocular vision.



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**38.** List which of the following are unconditional and which are conditional reflexes- Swimming, Blinking or eyes when strong light falls into the eyes, Crying of child when she/he is hungry, Cycling.



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**39.** Analyze the role of bone joints in human locomotion.



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**40.** With the help of word diagram represent the sequence of the onset of haploid stage to the onset of diploid stage in the alternation of generation of Fern.



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**41.** What are the functions of primary constriction and secondary constriction of a chromosome?



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**42.** Discuss the transition of explant to plantlet in brief.



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**43.** Write down the law that Mendel postulated from his Monohybrid Cross experiment.



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**44.** In a survey of the children of same parent of a family, the ratio of normal male child: hemophilic male child is 1:1 and all the female child are normal. Find out the genetic make up of their parents.





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**45.** Explain why Mendel was successful in performing his hereditary experiments. Give five reasons.



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**46.** State any three features of dawn horse.



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**47.** What do you mean by inheritance of acquired characters.



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**48.** Sundari plant can thrive well in Sundarban while pine tree cannot. Explain the statement in the life of adaption of Sundari plants.



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**49.** Mention the conditions for determination of biodiversity Hot-spot. Describe any three kinds of population interaction with example.



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**50.** Agricultural and Industrial run off is getting added to a pond. Explain how biomagnification is taking place over there.



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51. Discuss why Hilsa fish as well as Labeo-Kalbasu fish are found less and less.



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52. You want to bring high quality sperms of punjabi cattle to Kolkata for breeding. Discuss how you will do this.



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**53.** Draw a neat diagram of the verticle section of the eyeball of human eye and label the following parts:

Cornea, Iris, Choroid, Sclera



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**54.** Draw a neat diagram of a typical mature carpel (L.S) and label the following parts:

Pollen tube, Ovule, Antipodal cel ,micropyle



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**55.** Establish interrelationship among chromosome, DNA and gene. Write the chemical structure of DNA with the help of a chart.



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**56.** You have brought a rose twig your friend's house and planted it in you garden? Discuss the method you have adopted and why? How will you differentiate between the cell division

of a somatic cell and a reproductive mother cell on the basis of-  
nature of chromosome division



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**57.** How will you differentiate between the cell division of a somatic cell and a reproductive mother cell on the basis of-  
number of daughter cells produced



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**58.** Describe why a Four O'clock with pink flower are produced when a plant with red flower is crossed with a plant with a white flower.



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**59.** Dominant character can express itself both in homozygous and heterozygous form'-Explain the statement with the help of an example.



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**60.** How do homologous organs act as an evidence of organic evolution? Explain the origin of species in the light of Darwin.



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**61.** Discuss how wings of bat and birds indicate convergent evolution.



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**62.** Pollution and overuse of natural resources may be the cause of the loss of biodiversity'- explain.



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**63.** What criteria should you take into account to declare a place as a hotspot? You have been invited to deliver a speech in an awareness programme on Lung cancer. Discuss what you must include in your speech.





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**64.** Why is ever increasing population a cause of destruction of potable water and water bodies. Mention the bad effects of destruction of mangrove loss of biodiversity in the Sundarban areas.



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**65.** You are a member of JFM. Write down the duties that you will perform for them. List

down what should you do being engaged in  
Rhino conservation.



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