



# **BIOLOGY**

# **BOOKS - UNITED BOOK HOUSE**

# RAMAKRISHNA MISSION VIDYALAYA PAPER



**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:** 

**2.** Find out the correct sequence form the following-

A. 1. Pituitary  $\rightarrow$  TRH  $\rightarrow$  Thyroid  $\rightarrow$ Thyroxine B. 2.Pituitary ightarrow CRH ightarrow Adrenal ightarrowAdrenaline C. 3.TRH  $\rightarrow$  TSH  $\rightarrow$  Pituitary  $\rightarrow$ Thyroid

D. 4.CRH ightarrow Pituitary ightarrow ACTH ightarrow

Adrenal,

#### **Answer:**



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

B. Thermonasty

C. Hydrotaxis

D. Thermotaxis

#### **Answer:**

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

A.  $G_1$ 

 $\mathsf{B.}\,G_2$ 

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-

**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:** 



9. Select which of the following Haemophillia

disease is linked to-

# A. Y-Linked

- B. Nongeneric
- C. Autosomal
- D. X-Linked

### Answer:



10. Determine which ancestral from of modern

horse orginaated in the Miocene epoch-

# A. Pliohippus

- B. Mesohippus
- C. Merichippus
- D. Hyracotherium

#### Answer:



**11.** A terrific forest fire struck Amazon recently. Identify which of the following best explains the situation faced by the wild life thereA. 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. Vestigeal 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.  $SO_2$ 

# $\mathsf{B.}\,CH_2$

# C. CFC

D.  $N_2O$ 

#### **Answer:**



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.

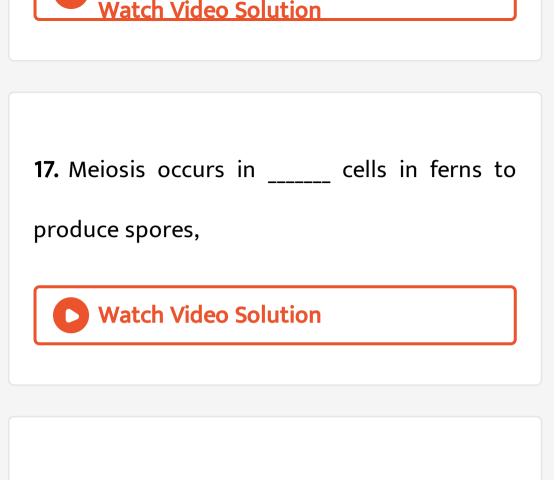
### Answer:

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16. The part of the eyeball controlling the

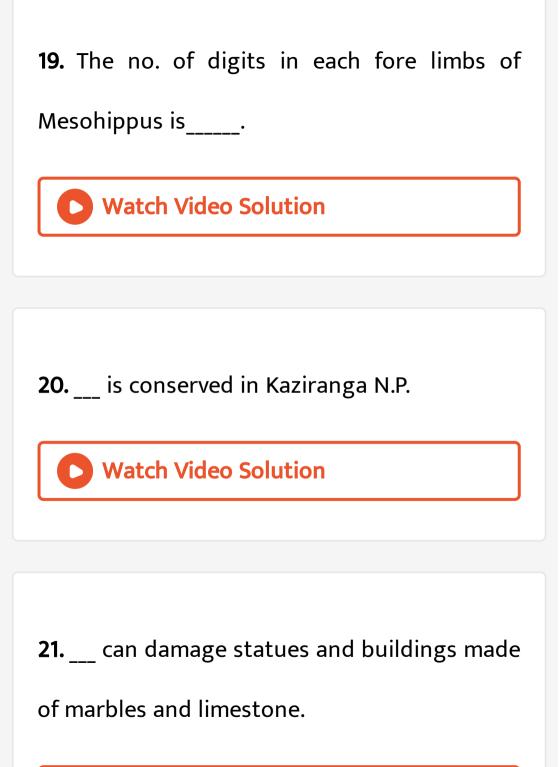
diameter of pupil is\_\_\_\_\_.





**18.** Father's \_\_\_\_\_ allosome combined with any

one of the mother's allosoms to give rise a male child.





22. Decide whether the following statements are true of falseThe covering of brain and Spinal Cord is meanings.

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

Thymine is not found in RNA.

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24. Decide whether the following statementsare true of falseAll dwarf and tall pea plants are always pure in

character.



25. Decide whether the following statements

are true of false

The mature RBC of camel is anucleated and

oval.

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26. Decide whether the following statements

are true of false

Phyllogey repeats ontogeny.

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

Insulin is secreted from the alpha cells of Islets

of Langarhans.

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

Myopia, Protanopia, Hypermetropia,

Presbyopia

**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. One the basis of relationship in the first pair write

the suitable word in the gap of second pair.

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





# 31. Which is the exception to Mendel's first

law?



# 32. Which reptile has an evolved four

chambered heart?

33. Name an amino acid produced in ther

experiment by Miller and Urey.



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

Poaching, global warming, reduction is

biodiversity, over exploitation



35. For the recovery of which plant JFM was

first introduced and in which forest?



36. Explain the interrelationship among FSH,

Graafian follicle and oestrogen.



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.

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



**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.

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



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



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



**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.





**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.

47. What do you mean by inheritance of

acquired characters.



48. Sundari plant can thrive well in Sundarban

while pine tree cannot. Explain the statement

in the life of adaption of Sundari plants.



49. Mention the conditions for determination

of biodiversity Hot-spot. Describe any three

kinds of population interaction with example.



**50.** Agricultural and Industrial run off is getting added to a pond. Explain how

biomagnification is taking place over there.



51. Discuss why Hilsa fish as well as Labeo-

Kalbasu fish are found less and less.



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



53. Draw a neat diagram of the verticle section

of the eyeball of human eye and label the

following parts:

Cornea, Iris, Choroid, Sclera



54. Draw a neat diagram of a typical mature

carpel (L.S) and label the following parts:

Pollen tube, Ovule, Antipodal cel ,micropyle



**55.** Establish interrelationship among chromnosome, 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

**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 heterozyous form'-Explain

the statement with the help of an example.

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



# 61. Discuss how wings of bat and birds indicate

convergent evolution.



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



**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. Dicuss what you must include in you speech.



**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.

