



# **BIOLOGY**

# **BOOKS - UNITED BOOK HOUSE**

# **MODEL PAPER 2017**



1. Some flowers open after sunrise and close

after sunset. This is-

A. photonasty

- B. Seismonasty
- C. Chemonasty
- D. Thermonasty

#### **Answer:**



**2.** A person affected with Diabetes Millitus is unable to secrete which of the following hormone in adequate quantity.

# A. Adrenaline

- B. Insuline
- C. Thyroxine
- D. Testosterone

#### Answer:



**3.** The part of human brain associated with controlling body temperature is-

# A. Thalamus

- B. Cerebellum
- C. Hyoothalamus
- D. Medula Oblongata.

#### Answer:



**4.** You have observed the separation of two sister chromatids at one stage of mitotic cell divison.

### A. Prophase

- B. Telophase
- C. Anaphase
- D. Metaphase.

#### **Answer:**



5. Which of the following pair is correct-

A. 1.Budding-Yeast

B. 2. Fragmentation-Earthworm

# C. 3.Spore formation-Amoeba

D. 4.Regeneration-Dryopteris

### Answer:

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6. Which phase of human development is associated with the maturity of reproductive organ and reproductive gland-

# A. childhood

- B. Adolescene
- C. Late Adulthood
- D. Infancy

#### **Answer:**

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7. Which of the folliwng traits in pea plant is

recessive-



**8.** How many types of gametes are foemd from pea plant having genotype YyRr-

A. 1

B. 4

C. 2

D. 3

#### Answer:



**9.** Calculate the probable change of being a haemophilic female child if a haemophilic male is married to a normal female

A. 0.75

B. 0.5

C. 1

D. 0

Answer:

**10.** The gas which was absent in the environment during the origin of life is

A. Hydrogen

B. Oxygen

C. Methane

D. Ammonia

Answer:



**11.** The feature of anaiogous organ is

A. Different in origin and functions are also

different

B. Different in origin but functins are same

C. Indicates divergent evolution

D. Identical in origin and structure.

Answer:

**12.** Choose the organ that absorbs gas from swimbladder of bony fish-

A. Red-gland

B. Anterior chamber

C. Gastric gland

D. Retia mirabilia

## Answer:

**13.** Select which of the following phase of Nitrogen cycle Pseudomonas is associated with-

A. Nitrogen fixation

**B. Nitrification** 

C. Dentrification

D. Ammonification

#### Answer:

14. One endangered species of the Eastern

Himalayas biodiversity hotspot is-

A. Lion tailed macaque

B. Orangutan

C. Red Panda

D. Nilgiri tahr.

### Answer:

**15.** The diseases associated with air pollution are-

A. Diarrhoea, Typhod, Hepatitis

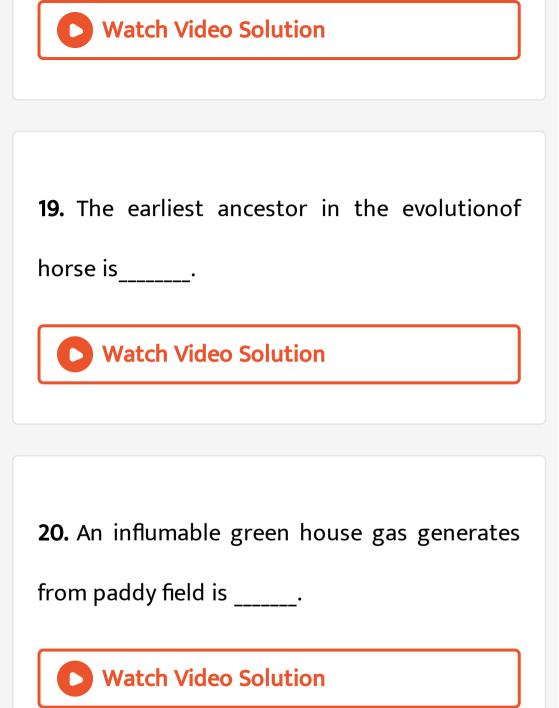
B. Hepatitis, Bronchitis, Deafness

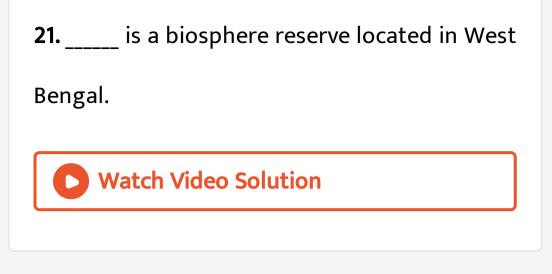
C. Bronchitis, Asthama, Lung Cancer

D. Lung cancer, pilio Malaria

#### Answer:

<b>16.</b> The process of necessary adjustment of
focal length of the lens in human eye is
called
<b>Watch Video Solution</b>
<b>17.</b> Adenine is atype of nitrogenous base.
<ul> <li>17. Adenine is atype of nitrogenous base.</li> <li>Watch Video Solution</li> </ul>





22. Gibberellin hormone prevents immature

shedding of leaf of plants.

**23.** Decide whether the following statement is true or false. Ovum is only produced as a result of mitosis.



24. Self-pollination or cross-pollination can be

exercised in flowers of pea plant according to

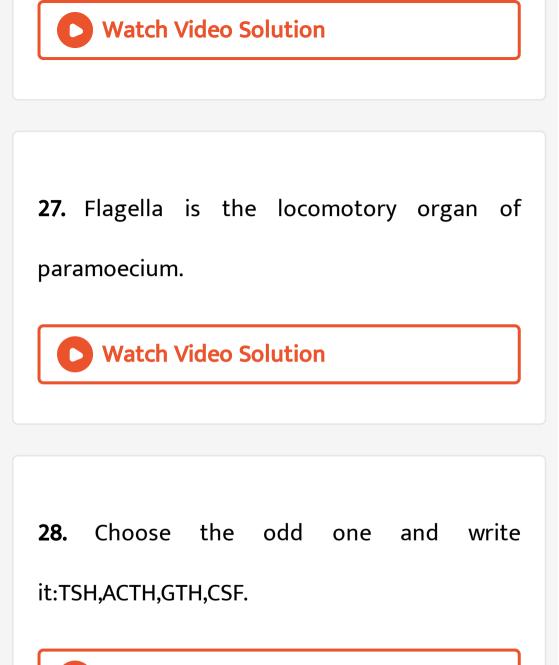
the need.



25. Discuss the following events as mentioned in the evolutionary theory of Darwin: Natural selection Adaptation is the change of shape, physiological functions and behaviour of organism'-Justify the statement with the help of any two examples.

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**26.** Degradable pollutant is responsible for biomagnification.

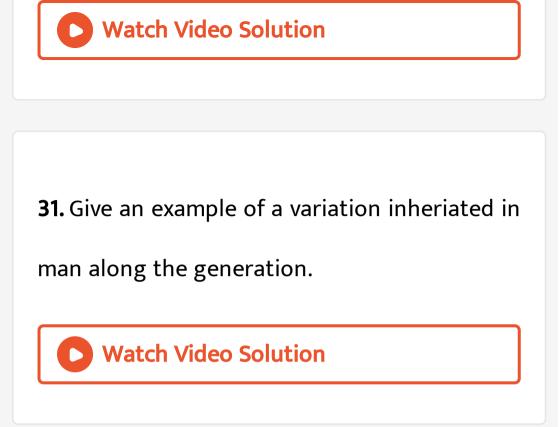


**29.** Write one function of myelin sheath.



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

Prophase: Disappearance of nuclear membrane and nucleous :: \_\_\_\_: Reappearance of nuclear membrane and nucleous.



**32.** Which type of chromosome in human carries gene responsible for the disease thalassemia?

33. Mention one morphological adaptation of

cactus to prevent transpiration.



**34.** Among the following four terms one includes the other three. Find out that term and write it: Embryo, Meristematic tissue. Seed,

Cryopreservation.



**35.** Write the name of the cause of the latest concern regarding the environment of Sundarbans.

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# 36. Write two differences between tropic and

nastic movement.



**37.** Write two roles of GTH in the secretion of hormone from the reproductive glands of human body.



# 38. Categorize the following actions as natural

or inherited reflex action.

Willingness of infants for breast-feeding

**39.** Categorize the following actions as natural

or inherited reflex action.

Cycling



# 40. Categorize the following actions as natural

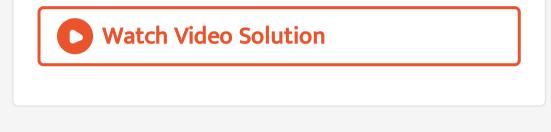
or inherited reflex action.

Sneezing

41. Categorize the following actions as natural

or inherited reflex action.

Catching ball by wicket keeper with swiftness



42. Write the parts of central nervous system

and peripheral nervous system.



**43.** Write two importance of cell cycle.



# 44. Distinguish between DNA and RNA based

on the following features:

Pyrimidine base



# 45. Distinguish between DNA and RNA based

on the following features:

5-C sugar





**46.** Which agents perform the function of pollination in the following plants: pady, Hydrilla, Shimul, Mango.

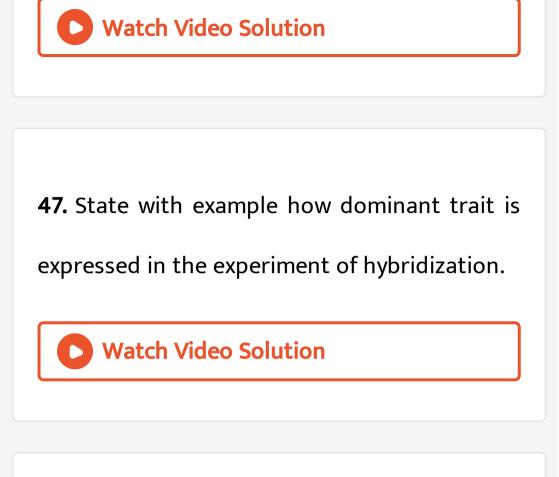
A. Paddy

B. Hydrilla

C. Shimul

D. Mango

#### Answer:



**48.** What would be the ratio of phenotype and genotype of  $F_2$  generation in monohybrid experiment in case of incomplete dominance?

49. Show with the help of a cross, how colour

blindness in inherited.



**50.** Write the name of reactants used and one organic compound formed in the experiment of Miller and Urey in connection with chemical origin of life.



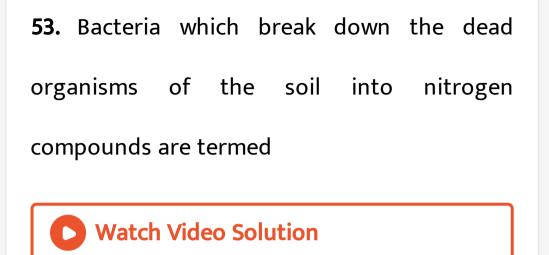
51. Write four important features modified in

the evolution of horse.

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52. How mangrove plants try to eliminate the

load of excess salts?



## 54. Mention two damages as a result of acid

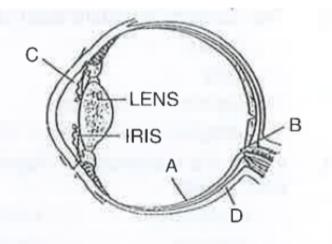
rain.

55. Give four examples of damages of biodiversity as a result of global warming.
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56. Write the major topics regarding

biodiversity documented in Peoples

Biodiversity Register(PBR).

**57.** Parts A, B, C and D of the human eye are shown in the diagram. Select the option which gives correct identification along with its functions/ characteristics



A. cornea

B. Lens

C. Vitreous humor

D. Retina

#### Answer:



**58.** Draw a neat diagram of metaphase of mitosis of a plant cell or an animal cell division and label the following parts- 1.chromosome 2.spindle fibre 3.polar region 4.Centromere.

# A. 1.chromosome

- B. 2.spindle fibre
- C. 3.polar region
- D. 4.Centromere.

#### Answer:

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# 59. What is the relationship between

chromosme, DNA and gene?



**60.** Distinguish between euchromatin and heterochromatin on the following aspect: Activity.

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61. State what happens in the following phase

of sexual reproduction of flowering plants :

Production of gamete or reproductive cell

62. State what happens in the following phase

of sexual reproduction of flowering plants :

Fertilization

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63. State what happens in the following phase

of sexual reproduction of flowering plants :

Fertilization

**64.** With the help of checker board show the type of offsprings that might be produced in a cross between hybrid black guineaping and a pure white guineaping. State the law of Segregation as proposed by Mendel.



**65.** Mention the symptoms of thalassemia disease.



66. . How a worker bee of beehives communicates with other worker bees regarding source and location of food? Watch Video Solution

**67.** With the help of arrow signs, show the major evolutionary events as occurred gradually after the origin of life.

68. What are causes of asthma?



# 69. State two causes of depletion of

# biodiversity with proper example.



**70.** Make your opinion based on your experience how the soures of fresh water become polluted.



**71.** Which conditions do you consider to declare one area out of two as biodiversity hotspot? Give two examples of ex-situ conservation.



