



## BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Sc.(Ag)-Hons-2024

Course Name – Introductory Biology

Course Code - RC-BAG172-B(T)

( Semester I )

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Brainware University  
398, Ramkrishnapur Road, Barasat  
Kolkata, West Bengal-700125

Full Marks : 50

Time : 2:0 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 20=20

1. Choose the correct alternative from the following :

(i) Which of the following organisms does not reproduce?

- |                           |                 |
|---------------------------|-----------------|
| a) Mule                   | b) Worker bee   |
| c) Infertile human female | d) All of these |

(ii) Which of the following sets does not contain defining characteristics of living organisms?

- |  |  |
|--|--|
| a) Growth and reproduction               | b) Metabolism and cellular level of organisation |
| c) Response to stimuli and consciousness | d) All of these                                  |

(iii) Identify the first step in taxonomy.

- |                                 |                                    |
|---------------------------------|------------------------------------|
| a) description of the organism  | b) identification of the organism  |
| c) nomenclature of the organism | d) classification of the organism. |

(iv) Choose the correct option: Founder of binomial nomenclature was

- |             |            |
|-------------|------------|
| a) Linnaeus | b) Mendel  |
| c) Darwin   | d) Lamarck |

(v) Show the correct option: How many living organisms are known to science?

- |                    |                    |
|--------------------|--------------------|
| a) 1.1-1.2 million | b) 1.2-1.4 million |
| c) 1.7-1.8 million | d) 1.9-2.0 million |

(vi) The ascending or descending arrangement of taxonomic categories grouped as

- |                   |             |
|-------------------|-------------|
| a) classification | b) taxonomy |
| c) hierarchy      | d) key      |

(vii) Why The term taxon is used?

- |                                   |                                    |
|-----------------------------------|------------------------------------|
| a) the ranks of species and genus | b) the ranks up to phylum          |
| c) the species epithet only       | d) any rank of taxonomic hierarchy |

(viii) Who is the father of taxonomy?

- |             |              |
|-------------|--------------|
| a) Linnaeus | b) Aristotle |
|-------------|--------------|

- c) Darwin  
(ix) What is known as PPLO?  
a) Mycoplasma  
c) Archaeobacteria  
(x) Show the correct option: Red tides in warm coastal water develop due to the abundance of  
a) dinoflagellates  
c) diatoms and desmids  
(xi) Identify the correct option: Physarum is a example of  
a) dinoflagellates  
c) diatoms and desmids  
(xii) Viroids are discovered by whom?  
a) T.O. Diener  
c) W.M. Stanley  
(xiii) Infer the following: Main component of the cell wall of fungi is  
a) cellulose  
c) chitin  
(xiv) Identify the correct option: Sexual reproduction in fungi occurs by all of the following except  
a) oospores  
c) zoospores  
(xv) Choose the correct option: According to one of the most widely accepted theories, earth's atmosphere before origin of life was  
a) oxidising  
c) reducing with free O<sub>2</sub> in small amount  
(xvi) Amitosis usually occurs in which place?  
a) eukaryotic cells  
c) meristems  
(xvii) Which phase occupies the maximum part of cell cycle?  
a) Mitotic phase  
c) Interphase  
(xviii) Identify the following: Zygotene of prophase-I is characterised by  
a) chromomeres  
c) crossing over  
(xix) Infer the correct option: Meiosis does not occur in  
a) bacteria  
c) plant cell  
(xx) What is the stage that occurs between the two meiotic divisions in meiosis?  
a) Interphase  
c) Interkinesis  
d) Lamarck  
b) Eubacteria  
d) none of these  
b) euglenoids  
d) Slime moulds  
b) euglenoids  
d) Slime moulds  
b) D.J.Ivanowsky  
d) K.M. Smith  
b) pectin  
d) dextrin  
b) ascospores  
d) basidiospores.  
b) oxidising along with H<sub>2</sub>  
d) reducing with oxygen absent in O<sub>2</sub> form  
b) prokaryotic cells  
d) spore mother cells  
b) Meiotic phase  
d) S phase  
b) synaptonemal complex  
d) terminalisation of chiasmata  
b) cyanobacteria  
d) both (a) and (b)  
b) Cytokinesis  
d) Prophase

### Group-B

(Short Answer Type Questions)

2.5 x  
10=25

2. Write down the utilization of petals in a flower. (2.5)
3. Compare between monocots and dicots in terms of their leaf venation. (2.5)
4. Explain the importance of the apical meristem in plant growth. (2.5)
5. What are some common characteristics of plants in the Brassicaceae family? (2.5)
6. Explain about some characteristic features of plants in the Fabaceae family. (2.5)

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7. Prepare a list of three well-known plant from the Fabaceae family along with their botanical name. (2.5)
  8. Explain in short about the process of seed germination. (2.5)
  9. Explain stratification in the context of seed germination? (2.5)
  10. Explain the purpose of beekeeping in agriculture. (2.5)
  11. Explain primary function of roots in flowering plants. (2.5)
- OR**
- Importance of legumes play in agriculture and ecosystems. (2.5)

**Group-C**  
(Long Answer Type Questions)

5 x 1=5

12. Distinguish between mitosis and meiosis. (5)
- OR**
- Compare and contrast the germination processes of dicot and monocot seeds, highlighting their similarities and differences. (5)

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