BRAINWARE UNIVERSITY

Term End Examination 2022
Programme – B.Sc.(Ag)-Hons-2022
Course Name – Introductory Biology
Course Code - RC-BAG172-B(T)
(Semester I)

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) Genetic diversity can be studied with the help of_____

a) DNA b) Protein
c) Lipid d) Carbohydrate

(ii) Apply your knowledge in the following 'Gymnosperm differ from angiosperm'

a) having seeds b) having fruits
c) having naked ovules d) None of these

(iii) Most of the cereal crops are uder the category of-

a) Monocots b) dicots
c) Monocots and Dicots with eqaul frequency d) Gymnosperms

(iv) If stamen of a flower of a plant is pollinated by the anthers of the same flowers, the event is called as-

a) Self pollination b) cross p[ollination
c) Often cross pollination d) Often self pollination

(v) A widely accepted explanation of natural phenomena; has stood up to thorough & continual testing is known as-

a) Hypothesis b) Theory
c) Law d) Formulae

(vi) Under Meiosis, pairing of homologous chromosome (Synapsis) takes place in following which stage-

a) Leptotene b) Zygotene
c) Pachytene d) Diplotene

(vii) Outer seed coat is-

a) Testa b) Tegmen
c) Hilum d) Funiculus

(viii) Seed dormancy may be due to-

a) Permeable seed coat b) Hard impermeable seed coat
c) Thin seed coat d) Lack of reserve food

(ix) Mechanical injuring of seed coat to break dormancy is called-

a) Scarification
b) Stratification
c) Impaction
d) Compaction

(x) The first process which occurs when the seed is placed in the soil is-

a) Photosynthesis
b) Respiration
c) Imbibitions
d) Solubilisation of food

(xi) Part of the seed which forms the shoot at the timeof germination is-

a) Radicle
b) Cotyledons
c) Epicotyls
d) Plumule

(xii) Which one is odd based on their cotyledon type-

a) Allium cepa
b) Helianthus annuus
c) Brassica juncea
d) Arachis hypogea

(xiii) Which one is the reproductive unit having an embryo, reserve food and protective covering-

a) Spore
b) Fruit
c) Seed
d) Fruitlet

(xiv) Which one is a monocotyledonous seed-

a) Pisum sativum
b) Cicer arietinum
c) Dolichos lablab
d) Triticum aestivum

(xv) For the preparation of vermicompost, suitable waste is-

a) Low C/N ratio
b) High C/N ratio
c) Low C/O ratio
d) High C/O ratio

(xvi) Identify among which of the following is a mold?

a) Penicillium
b) Candida
c) Streptomyces
d) Pseudomonus

(xvii) Where the Halophyte plants grow?

a) Fresh water
b) Cold water
c) Ponds
d) Salt Water

(xviii) The most important external factor for seed germination is

a) Light
b) Soil
c) Oxygen
d) Water

(xix) Seeds placed deep in the soil do not germinate because they are

a) Unable to get sufficient oxygen
b) Without sufficient food to bring the seedling the surface
c) Under pressure of overlying soil layers
d) Unable to get light

(xx) Lycopersicum esculentum is the family under

a) Fabaceae
b) Solanaceae
c) Brassicaceae
d) None of these

Group-B

(Short Answer Type Questions) 2.5 x 10=25

2. What are the different parts of an ideal leaf ? (2.5)
3. Classify cell division with brief description on Mitosis and Meiosis. (2.5)
4. Find out or identify different segments of a dicot seed. Briefly explain. (2.5)
5. Decide, why Binomial nomenclature is useful in taxonomy? (2.5)
6. Demonstrate the difference between epigeal and hypogeal germination. (2.5)
7. Give an outline on Archaebacteria. (2.5)
8. Apply some feature of Cyanobacteria (Algal Biofertilizers) which are contributing in different way for agriculture development. (2.5)
9. Characterize the basics of vein and stomata as the parts of leaf. (2.5)
10. Describe the followings based on types of pollinating agents- Entomophily, Ornithophily, Anemophily and Hydrophily. (2.5)
11. Find out different characteristics which are unique for Plant Cell. (2.5)

OR

Find out the name of special types of organisms which are not mentioned in the R. H. Whittaker five kingdom system of classification. (2.5)

Group-C

(Long Answer Type Questions) 5 x 1=5

12. Create a proper description on 'Composition of an ideal flower' with proper diagram. (5)

OR

Based on their nature and function, propose the basic five groups of biofertilizers (5)

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