



Registration No:

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AR-2018

B.Sc (Ag)

FIRST YEAR EXAMINATION-JULY 2019

AG-111

Introductory Biology

Time : 2 Hours

Maximum : 50 Marks

(Answer **all** questions of Section – A)

SECTION – A

1. Short type answer [1x5 = 5]

- What do you mean by diversity of life?
- What is eugenics?
- Write down the importance of cell division?
- What is the function of mitochondria?
- Who is the father of binomial nomenclature?

2. Match the following? [10x0.5 = 5]

Column-I

- Hugo de Vries
- Cell Theory
- Maize
- Alfalfa
- Chiasmata
- Crossing over
- Calyx
- Corolla
- Imbibition
- Carolus Linnaeus

Column-II

- Sepals
- Pachytene
- Father of classification
- Petals
- Mutation
- Schleiden and Schwann
- Poaceae
- Fabaceae
- Diploene
- Swelling of seeds

3. Fill up the blanks. [10x0.5 = 5]

- Scientists use taxonomy to _____ of organisms?
- Taxonomy provides consistent ways to _____ organisms?
- _____ is the basic biological unit in the linnaean system of classification?
- had given the theory of evolution of species by natural selection?
- The process by which new species develop from the existing species is called-----?
- Prokaryotic cells lack a _____?
- Organelle which serves as a primary packaging area for molecules that will be distributed throughout the cell?
- contains single chromosome and cell division occurs through fission or budding?
- Petals in Brassicaceae are-----?
- Mitosis makes____daughter cells?



4. Multiple choice question:

[10x0.5 = 5]

- a) Who had given the theory of evolution of species by natural selection?
A. Darwin B. Mendel C. Dalton D. Morgan
- b) Which of the following are the sources which provide evidences for evolution?
A. Homologous organs B. Analogous organs C. Fossils D. All the above
- c) Name the organs which have different basic structure but have similar appearance and perform similar functions?
A. Analogous organs B. Homologous organs C. Both A and B D. Neither A nor B
- d) The theory of origin of life on earth is proposed by:
A. Haldane B. Stanley Miller C. Harold C. Urey D. Lamarck
- e) In most species of plants, food is stored in
A. Radical B. plumule C. cotyledon D. zygote
- f) First part which comes out of a seed is
A. Radical B. plumule C. stem D. cotyledon
- g) When seed is sown into soil, first thing which happens is
A. takes up water B. takes up oxygen C. bursts apart D. splits into two parts
- h) In Brassicaceae the flowers are zygomorphic
A. Brassica B. Raphanus C. Iberis D. Lepidium
- i) Choose the correct statement with respect to unicellular organisms:
A. in unicellular organisms, tissues work in co-ordination to perform different functions.
B. unicellular organisms do not require food.
C. unicellular organisms respire and reproduce.
D. all unicellular organisms move by cilia.
- j) The largest subunit of prokaryotic ribosome is
A. 30S B. 40S C. 50S D. 60S

SECTION – B

(Attempt any **five** questions. Each question carries equal marks)

5x6=30

- 5) Explain Darwin's theory of evolution?
- 6) What is binomial nomenclature? Explain the process of classification with example?
- 7) Define cell? Write the brief sketch of prokaryotic cells with features?
- 8) Write down the morphological characteristics of family Brassicaceae?
- 9) Explain various stages of mitosis?
- 10) Describe the process of seed germination?