6. Write short notes on any **three** of the following : (5×3=15)

(a) Biological Species Concept

(b) Geological time Scale

(c) Genetic drift

(d) Adaptive resemblances

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5267 **L**

Unique Paper Code : 2234000032

Name of the Paper : Concept of Evolutionary Biology (DSC)

Name of the Course : **B.Sc. (P) (Applied Life Sciences - Agrochemicals & Pest**

Semester : VIII, NEP-UGCF (May/June 2026)

Duration : 2 Hours Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **four** questions in all.
3. Question No. **1** is compulsory.
4. Draw well labelled diagram wherever required.

1. Define the followings (any **five**) : (1×5=5)

(a) (i) Mass Extinction

(ii) Allopatric Speciation

(iii) Molecular Clock

(iv) Coacervates

(v) Petrification

(vi) Kin selection

(b) Differentiate the followings (any **four**) : (4×2.5=10)

(i) Ring species and Sibling Species

(ii) Founder effect and Bottleneck effect

(iii) Lamarkism and Darwinism

(iv) Artificial and Natural Selection

(v) Body fossil and Trace fossil

2. (a) Define reproductive isolation and discuss about various prezygotic and post zygotic methods of reproductive isolation. (9)

(b) Discuss in brief about biochemical theory of origin of life. (6)

3. (a) Discuss in detail about Neo-Darwinism theory of Evolution. (8)

(b) Define speciation and discuss about various types of speciation mechanisms. (7)

4. (a) Discuss about different types of genetic variations and their role in evolution. (8)

(b) Discuss about natural selection and different models of natural Selection. (7)

5. Define and explain the following : (5×3=15)

(a) RNA World

(b) Endosymbiotic Theory

(c) K-T Extinction