

2053
M.Sc. (Bio-Informatics) Fourth Semester
MBIN-8019: Informatics in Biodiversity and Bioethics

Time allowed: 3 Hours

Max. Marks: 60

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting atleast one question from each Unit.

I. Answer briefly:-

x-x-x

- (a) Nonsense mutation
- (b) MANIS
- (c) Bioethics of genes
- (d) Microevolution
- (e) Speciation
- (f) Transposition
- (g) Translational Governance
- (h) Bioethics

(8x1½)

UNIT - I

- II. a) Discuss the different types of species diversity.
b) Describe the evidences of Speciation and Co-speciation. (2x6)
- III. a) Discuss the Gradualism model of macroevolution.
b) Explain the role of horizontal gene transfer in creating genetic variations. (2x6)

UNIT - II

- IV. a) Write a note on Mosquito genome database.
b) Discuss the biology of vectors with a suitable example. (5,7)
- V. Write notes on:-
 - a) Fishbase
 - b) Indian Biodiversity portal (2x6)

UNIT - III

- VI. a) Elaborate on the importance of Bioethics principles.
b) Write a note on the therapeutic use of genetic engineering. (2x6)
- VII. a) Discuss the antiretroviral therapy for treatment of HIV/AIDS.
b) Explain the significance of Cartagene protocol. (2x6)

x-x-x