

D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1.
ENVIRONMENTAL BIOLOGY AND EVOLUTION (16CPZO2B)

UNIT-I

SECTION-A

6 Marks

1. Give an account on the concept of ecosystem.
2. Discuss about the Natural and Man-made ecosystem with examples.
3. Explain the energy flow in an ecosystem
4. Describe about the food chain and food web in forest ecosystem
5. Explain ecological efficiencies
6. What are the productivity and its measurement? Explain.
7. Explain Community succession
8. Give an account on Influence of competition.

SECTION-B

15 Marks

1. Explain the Trophic structure and levels with examples
2. What is ecological pyramids? Explain the types.

UNIT-II

SECTION-A

6 Marks

1. What is Biomass? Explain
2. Describe the Conventional and non - conventional energy sources.
3. Give a detailed account on Renewable and non - renewable resources

SECTION-B

15 Marks

4. Give an account on the adaptations with reference to physico - chemical features of environment of coastal ecosystems

UNIT-III

SECTION-A

6 Marks

1. Explain the principles of conservation
2. Give a brief account on soil health and fauna
3. Discuss about agricultural Biosphere reserves
4. Write in detail about the cryopreservation.
5. Give an account on Wildlife conservation and management

SECTION-B

15 Marks

1. Give a detailed account on Rain water harvesting
2. Describe the soil waste and industrial waste disposal
3. Explain in detail about the Environmental Protection Act.

4. Write about the Problems of urbanization

UNIT-IV

SECTION-A

6 Marks

1. Write a short note on the need of evidences for the fact of evolution
2. Give a brief account on data mining.
3. Explain in detail about Batesian and Mullerian mimicry and evolution.
4. Write a short note on Plate tectonics and continental drift
5. Write a short note on evolutionary evidences from biochemistry.
6. Describe about biogeography

SECTION-B

15 Marks

1. Write a detailed account on the evolutionary evidences from comparative anatomy and embryology.
2. Discuss in detail about evolutionary trends in fossils and types of fossils.
3. Explain the Maintenance of polymorphism

UNIT-V

SECTION-A

6 Marks

1. Write a short note on the Mutations and their role in evolution
2. Give a brief account on the role of genetic drift
3. Explain in detail about hybridization and evolution.
4. Write a short note on isolating mechanisms
5. Write a short note on problems of the origin of isolating mechanism.
6. Describe about the Ecological opportunities for speciation

SECTION-B

15 Marks

1. Write a detailed account on the ecology of speciation
2. Discuss in detail about Mayr's founder principle and genetic evolution
3. Explain the altruism and kin selection - bioethics.