

**DOS IN ZOOLOGY  
M.Sc., III SEMESTER**

**Soft Core Paper: BIODIVERSITY**

**THEORY**

**48 Hrs**

**UNIT I**

**8 Hrs**

- A) Biodiversity : Definition, Concept, types and scope
- B) Global Biodiversity
- C) Biodiversity profile as heritage in India with special reference to Karnataka
- D) Species diversity : Microbes, Plant and Animal species
- E) Major Biomes: Wetlands, Forests etc.

**UNIT II**

**8 Hrs**

- A) Causes of Biodiversity Loss
- B) Threatened Biodiversity : Microbes, Plants and Animals
- C) Biodiversity conservation strategies - Present and Future
- D) Conventions on Biological Diversity
- E) International Trade on biodiversity and their products

**UNIT III**

**8 Hrs**

- A) Biological diversity Act, 2002
- B) Biodiversity hotspots at global and National level and conservation Priorities
- C) Management of Biodiversity hotspots in India
- D) Bioethics and conservation
- E) Dunkel's Report and IPR

**UNIT IV**

**8 Hrs**

- A) Impact of human development on biodiversity
- B) Effect of pollution on biodiversity
- C) Impact of global warming and climate change on biodiversity
- D) Earth summits

**UNIT V**

**8 Hrs**

- A) Mapping Biodiversity
- B) Biodiversity: Coral Reefs and sea weeds in India
- C) Genetic Diversity of economically important breeds in India  
(Ex. Cattle, Buffalo, Sheep etc.)
- D) International Treaty on Plant Genetic Resources for Food and Agriculture

## UNIT VI

8 Hrs

- A) Biodiversity Assessment and Prospecting
- B) Biodiversity Sustainable Development
- C) Biodiversity Conservation: Legal Aspects and Future Strategies for India
- D) Biodiversity: Policy and Priority setting
- F) Bioremediation: Need and scope, Ecological application of Bioremediation, Man and biosphere programme (MAB)

## TUTORIALS

32 Hrs

## REFERENCE

1. Agrawal, K.C. 2000. Biodiversity. Agrobios (India) Publishers, Jodhpur.
2. Kannaiyan, S. and Gopalam, A. 2007. Biodiversity in India – Issues and Concerns. Associated Publishing Company, New Delhi.
3. Kevin, J., Gaston and Jhon I. Spicer. 1998. Biodiversity – An Introduction. Blackwell Science Publishers, UK.
4. Kumar, U. and Asija, M. 2005. Biodiversity : Principles and Conservation (2<sup>nd</sup> Edn.), Agrobios (India) Publishers, Jodhpur.
5. NBA. 2004. The Biological Diversity Act (2002) and Biological Diversity Rules (2004). National Biodiversity Authority, India.
6. Negi, S.S and Bahuguna, V.K. 1983. An Introduction to wildlife management. Bishen Singh Mahendra Pal Singh. Dehara Dun, India.
8. Kotwal, P.C. and Banerjee, S. 2004. Biodiversity Conservation – in Managed Forests and Protected Areas. Agrobios (India) Publishers, Jodhpur.
9. Saharia, V.B. 1982. Wildlife in India. Natraj Publishers. Dehara Dun.
10. Singh, M.P. 2009. Biodiversity. APH Publishing Corporation, New Delhi.

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