# DOON UNIVERSITY, DEHRADUN
## Semester Final Examination, Second Semester,2013
## School of Environment & Natural Resources

### M.Sc. (Natural Resource Management)
### Course: ENR – 516: Biodiversity Assessment and Conservation

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*Time Allowed: 3 Hours* *Maximum Marks: 50*

*Note: Attempt All Questions from Sections A, Five Questions from B and Two Questions from C.*

**SECTION : A ( Short Answer Type Questions. Attempt all Questions).**

*(Marks: 1x10=10)*

Q1. Name the Ecologist who introduced the concept of Biodiversity Hotspot.

Q2. Which hotspot in India has been recognized as world heritage site and why?

Q3. Which are the Mega-bio diverse countries?

Q4. Name any two endangered plant and animal species of India.

Q5. Name any four important conservation projects of India.

Q6. Name the endangered birds of India.

Q7.Expand any four CBD, NBA, NBAP, NEP, LMMDCs, BMC

Q8. Name any four medicinal plants.

Q9. Name at least four policies and programme aimed at biodiversity conservation in India.

Q10. Name the Biosphere reserves of India recognized by UNESCO under the world network of BRs.

**SECTION: B (Short Answer Type Questions. Attempt any Five Questions)**

*(Marks: 4 x 5=20)*

Q1. Write short note on Biodiversity act 2002.

Q2. Discuss the role of biodiversity in food and livelihood security.

Q3. What are the main bio geographic provinces of India?

Q4. Discuss in detail the salient features of COP11.

Q5. Discuss in detail the insect biodiversity and their role in ecosystem services.

Q6. Define wetland and its major functions.

**SECTION: C (Long Answer Type Questions. Attempt any Two Questions)**

***(Marks: 10 x2=15)***

Q1. What are the major drivers of change and threat to biodiversity in the present scenario? Discuss in detail.

Q2. Name the biodiversity hotspots of India. Discuss the important features of Indian Biodiversity hotspots.

Q3. Differentiate between alpha, beta and gamma diversity giving some hypothetical example. Discuss in detail the Simpsons diversity index.

Q4. Discuss in detail the strategic plan for Biodiversity 2011-2020 and the Aichi Biodiversity targets.

Q5. Discuss Ramsar Convention and its policies for wetland conservation.

# DOON UNIVERSITY, DEHRADUN

## Second Semester Practical Examination (May, 2013)

## School of Environment & Natural Resources

## M.Sc. (Environmental Studies and Natural Resources)

## Course: EES – 518: Analytical Techniques and Instrumentation

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*Time Allowed: 3 Hours* *Maximum Marks: 15*

**Note: Section A: Experimental Part.** **(4 Marks)**

**Q. 1:** Prepare the standard solution of Oxalic acid and find its strength with the help of N/10 NaOH solution.

*Or*

Determine the alkalinity of given water sample by titration method.

*Or*

Estimate the total sulphur in $BaSO_4$ gravimetrically.

*Or*

Determine the total hardness of water sample using complexometry.

**Section B:**

**Attempt all questions (short answer type question)** **(0.6X10=6 Marks)**

**Q.1:** What do you understand by hardness of water sample? What are the responsible factors for it?

**Q.2:** What do you understand by standardization?

**Q.3:** Define Normality?

**Q.4:** What is the normality of HCl used in laboratory?

**Q.5:** How much dilution will you make to prepare 6N $H_2SO_4$ from its standard (36N)?

**Q.6:** Why do we use two different indicators to determine the alkalinity of a water sample?

**Q.7:** Give the reasons as to why alkalinity of water cannot be due to the presence of $OH^-$ ions and $HCO_3^-$ ?

**Q.8:** What is the equivalent weight of $H_3PO_4$?

**Q.9:** Calculate the required weight of NaOH to prepare its 0.58 N solution?

**Q.10:** What is methyl orange end point when standard acid is used as titrant?

**Record and Viva** **(5 Marks)**