

**ZOOLOGY**

**PAPER II: CW – 02 (TOOLS AND TECHNIQUES)**

**Model question paper**

**[Set – I]**

**Duration - 3.00 Hrs**

**Max. Marks - 80**

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*Note: Section - A is Compulsory. Answer one question from each unit of Section - 'B'.*

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**Section - A**

**Q. 1. Answer the following questions in brief.**

**2 X 10 = 20**

- i. Who and when propounded the concept of biodiversity and hot spot?
- ii. What is IUCN red list?
- iii. Define primary and secondary productivity
- iv. What is biomass? How it is measured.
- v. What is chromatography? Who proposed the technique?
- vi. Write Lambert's and Beer's law.
- vii. What is camera lucida .
- viii. What is the Immunohistochemistry? What is its use?
- ix. Rapid approximate method by Huson is used for what purpose.
- x. Write the name of various methods of insect pest control.

**Section - B**

**12 X 5 = 60**

**UNIT – I**

2. Describe different sampling and field methods used in study of Biodiversity.
3. What do you understand with Conservation of Biodiversity? Discuss it in Indian perspective.

**UNIT – II**

4. Discuss the methods of collection, preservation and identification of higher non chordates.
5. How Biomass and Gross Productivity is estimated. Give various methods.

**UNIT – III**

6. What is Electrophoresis? Discuss Paper and Gel Electrophoresis in detail.
7. Write an essay on applications of Chromatographic Techniques in Biology.

**UNIT – IV**

8. Write the principle of Phase Contrast Microscope and describe instrumentation and applications.
9. Describe In Situ Whole Mount staining techniques.

**UNIT – V**

10. What is Toxicology? Discuss the dose response relationship in organisms. How would you evaluate toxicity?
11. How the insecticide and pesticide residue affects plants and animals?