

## Department of Zoology B.Sc Zoology Programme Outcomes

**PO1. Communication Skills:** Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express themselves; demonstrate the ability to listen carefully, read and write analytically and present complex information in a clear and concise manner to different groups.

**PO2. Critical Thinking:** Capability to apply analytic thought to a body of knowledge; analyze and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to knowledge development.

**PO3. Problem Solving:** Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge and apply one's learning to real life situations.

**PO4. Analytical reasoning:** Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples and addressing opposing viewpoints.

**PO5. Cooperation/Team work:** Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.

**PO6. Scientific Reasoning:** Ability to analyze, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective.

**PO7. Information/digital Literacy:** Capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.

**PO8. Moral and Ethical awareness/reasoning:** Ability to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues related to one's work, avoid unethical behaviour such as fabrication, falsification or misrepresentation

of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work.

**PO9. Leadership readiness/qualities:** Capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.

**PO10. Life-long Learning:** Ability to acquire knowledge and skills, including learning how to learn, that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives and adapting to changing trades.

## DEPARTMENT OF ZOOLOGY

### Programme Specific Outcomes

**PSO1:** Understand the taxonomic positions and characteristics, life cycles, and even the parasitic mode of important lower animals.

**PSO 2:** Identify the different species of chordate & know general descriptions of Pisces, Amphibian, Reptilians, Aves and Mammals.

**PSO 3:** Comprehend the structure and functions of carbohydrates, lipids, proteins, nucleic acid and enzymes.

**PSO4:** Understand Mendelian genetics; Mutation, role of chromosomes in sex determination; recombinant bacteria and viruses.

**PSO 5:** Acquaint with the structure and function of various cell organelles, organ systems, cell division & cell signaling.

**PSO 6:** Develop the conceptual knowledge of ecology and its important attributes; biodiversity and its conservation and scope tourism sector.

## CO-PO Mapping

| Courses / PO's   | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Animal Diversity   | ✓   | ✓   |     |     | ✓   |     | ✓   |     |     | ✓    |
| Animal Diversity<br>Practical -1   | ✓   | ✓   |     |     | ✓   |     | ✓   |     |     | ✓    |
| Comparative<br>Anatomy and<br>Developmental<br>Biology of<br>Vertebrates                 | ✓   | ✓   |     | ✓   | ✓   | ✓   | ✓   |     |     | ✓    |
| Comparative<br>Anatomy and<br>Developmental<br>Biology of<br>Vertebrates<br>Practical -2 | ✓   | ✓   |     | ✓   | ✓   | ✓   | ✓   |     |     | ✓    |
| Physiology and<br>Biochemistry   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     |     | ✓    |
| Physiology and<br>Biochemistry<br>Practical -3   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     |     | ✓    |
| Genetics and<br>Evolution  | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     | ✓   | ✓    |
| Genetics and<br>Evolution<br>Practical -4  | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |     | ✓   | ✓    |
| Cell and<br>Molecular Biology  | ✓   | ✓   |     | ✓   |     | ✓   | ✓   |     | ✓   | ✓    |
| Cell and<br>Molecular Biology<br>Practical -5  | ✓   | ✓   |     | ✓   |     | ✓   | ✓   |     | ✓   | ✓    |
| SEC5:Apiculture  | ✓   |     |     |     | ✓   | ✓   | ✓   | ✓   | ✓   | ✓    |
| Ecology, Wildlife<br>Biology and<br>Animal Behaviour                                     | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓    |
| EWBAB:<br>Practical-6  | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓    |
| SEC6: Sericulture  | ✓   |     |     |     | ✓   | ✓   | ✓   | ✓   | ✓   | ✓    |

## **CO-PO Attainment Target**

| <b>Courses / PO's</b>  | <b>PO1</b> | <b>PO2</b> | <b>PO3</b> | <b>PO4</b> | <b>PO5</b> | <b>PO6</b> | <b>PO7</b> | <b>PO8</b> | <b>PO9</b> | <b>PO10</b> |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| Animal Diversity   | 3          | 3          |            |            | 3          |            | 3          |            |            | 3           |
| Animal Diversity<br>Practical -1   | 2          | 2          |            |            | 2          |            | 2          |            |            | 2           |
| Comparative<br>Anatomy and<br>Developmental<br>Biology of<br>Vertebrates                 | 2          | 2          |            | 2          | 2          | 2          | 2          |            |            | 2           |
| Comparative<br>Anatomy and<br>Developmental<br>Biology of<br>Vertebrates<br>Practical -2 | 2          | 2          |            | 2          | 2          | 2          | 2          |            |            | 2           |
| Physiology and<br>Biochemistry   | 3          | 3          | 3          | 3          | 3          | 3          | 3          |            |            | 3           |
| Physiology and<br>Biochemistry<br>Practical -3   | 3          | 3          | 3          | 3          | 3          | 3          | 3          |            |            | 3           |
| Genetics and<br>Evolution  | 3          | 3          | 3          | 3          | 3          | 3          | 3          |            | 3          | 3           |
| Genetics and<br>Evolution<br>Practical -4  | 3          | 3          | 3          | 3          | 3          | 3          | 3          |            | 3          | 3           |
| Cell and<br>Molecular Biology  | 3          | 3          |            | 3          |            | 3          | 3          |            | 3          | 3           |
| Cell and<br>Molecular Biology<br>Practical -5  | 3          | 3          |            | 3          |            | 3          | 3          |            | 3          | 3           |
| SEC5:Apiculture  | 2          |            |            |            | 2          | 2          | 2          | 2          | 2          | 2           |
| Ecology, Wildlife<br>Biology and<br>Animal Behaviour                                     | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2           |
| EWBAB:<br>Practical-6  | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3           |
| SEC6: Sericulture  | 3          |            |            |            | 2          | 2          | 2          | 2          | 2          | 2           |
| <b>Average</b>   | <b>2.5</b> | <b>2.7</b> | <b>2.7</b> | <b>2.6</b> | <b>2.5</b> | <b>2.5</b> | <b>2.7</b> | <b>2.2</b> | <b>2.5</b> | <b>2.5</b>  |

## **CO-PO Attainment Achieved**

| Courses / PO's  | PO1        | PO2        | PO3        | PO4        | PO5        | PO6        | PO7        | PO8        | PO9        | PO10       |
|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Animal Diversity  | 3          | 3          |            |            | 3          |            | 3          |            |            | 3          |
| Animal Diversity Practical -1   | 2.8        | 2.8        |            |            | 2.8        |            | 2.8        |            |            | 2.8        |
| Comparative Anatomy and Developmental Biology of Vertebrates              | 2.2        | 2.2        |            | 2.2        | 2.2        | 2.2        | 2.2        |            |            | 2.2        |
| Comparative Anatomy and Developmental Biology of Vertebrates Practical -2 | 2          | 2          |            | 2          | 2          | 2          | 2          |            |            | 2          |
| Physiology and Biochemistry   | 3          | 3          | 3          | 3          | 3          | 3          | 3          |            |            | 3          |
| Physiology and Biochemistry Practical -3                                  | 3          | 3          | 3          | 3          | 3          | 3          | 3          |            |            | 3          |
| Genetics and Evolution  | 3          | 3          | 3          | 3          | 3          | 3          | 3          |            | 3          | 3          |
| Genetics and Evolution Practical -4                                       | 3          | 3          | 3          | 3          | 3          | 3          | 3          |            | 3          | 3          |
| Cell and Molecular Biology  | 3          | 3          |            | 3          |            | 3          | 3          |            | 3          | 3          |
| Cell and Molecular Biology Practical -5                                   | 3          | 3          |            | 3          |            | 3          | 3          |            | 3          | 3          |
| SEC5:Apiculture   | 1.4        |            |            |            |            | 1.4        | 1.4        | 1.4        | 1.4        | 1.4        |
| Ecology, Wildlife Biology and Animal Behaviour                            | 2.2        | 2.2        | 2.2        | 2.2        | 2.2        | 2.2        | 2.2        | 2.2        | 2.2        | 2.2        |
| EWBAB: Practical-6  | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          | 3          |
| SEC6: Sericulture   | 3          |            |            |            | 2          | 2          | 2          | 2          | 2          | 2          |
| Average   | <b>2.6</b> | <b>2.7</b> | <b>2.8</b> | <b>2.7</b> | <b>2.6</b> | <b>2.5</b> | <b>2.6</b> | <b>2.1</b> | <b>2.5</b> | <b>2.5</b> |

## **CO-PSO Mapping**

| Courses / PSO's   | PSO1 | PSO2 | PSO3 | PSO4 | PSO5 | PSO6 |
|---|------|------|------|------|------|------|
| Animal Diversity  | ✓    | ✓    |      |      |      | ✓    |
| Animal Diversity<br>Practical -1  | ✓    | ✓    |      |      |      | ✓    |
| Comparative<br>Anatomy and<br>Developmental<br>Biology of Vertebrates                 | ✓    | ✓    |      |      | ✓    | ✓    |
| Comparative<br>Anatomy and<br>Developmental<br>Biology of Vertebrates<br>Practical -2 | ✓    | ✓    |      |      | ✓    | ✓    |
| Physiology and<br>Biochemistry  |      |      | ✓    |      | ✓    |      |
| Physiology and<br>Biochemistry<br>Practical -3  |      |      | ✓    |      | ✓    |      |
| Genetics and<br>Evolution   | ✓    |      |      | ✓    | ✓    |      |
| Genetics and<br>Evolution Practical -<br>4  | ✓    |      |      | ✓    | ✓    |      |
| Cell and Molecular<br>Biology   |      |      | ✓    | ✓    | ✓    |      |
| Cell and Molecular<br>Biology Practical -5  |      |      | ✓    | ✓    | ✓    |      |
| SEC5:Apiculture   | ✓    |      |      | ✓    |      |      |
| Ecology, Wildlife<br>Biology and Animal<br>Behaviour                                  | ✓    | ✓    |      |      |      | ✓    |
| EWBAB: Practical-6  | ✓    | ✓    |      |      |      | ✓    |
| SEC6: Sericulture   | ✓    |      |      | ✓    |      |      |

## CO-PSO Target

| Courses / PSO's   | PSO1       | PSO2       | PSO3     | PSO4       | PSO5       | PSO6       |
|---|------------|------------|----------|------------|------------|------------|
| Animal Diversity  | 3          | 3          |          |            |            | 3          |
| Animal Diversity<br>Practical -1  | 2          | 2          |          |            |            | 2          |
| Comparative<br>Anatomy and<br>Developmental<br>Biology of Vertebrates                 | 2          | 2          |          |            | 2          | 2          |
| Comparative<br>Anatomy and<br>Developmental<br>Biology of Vertebrates<br>Practical -2 | 2          | 2          |          |            | 2          | 2          |
| Physiology and<br>Biochemistry  | 3          |            | 3        |            | 3          |            |
| Physiology and<br>Biochemistry<br>Practical -3  | 3          |            | 3        |            | 3          |            |
| Genetics and<br>Evolution   | 3          |            |          | 3          | 3          |            |
| Genetics and<br>Evolution Practical -<br>4  | 3          |            |          | 3          | 3          |            |
| Cell and Molecular<br>Biology   | 3          |            | 3        | 3          | 3          |            |
| Cell and Molecular<br>Biology Practical -5  | 3          |            | 3        | 3          | 3          |            |
| SEC5:Apiculture   | 2          |            |          | 2          |            |            |
| Ecology, Wildlife<br>Biology and Animal<br>Behaviour                                  | 2          | 2          |          |            |            | 2          |
| EWBAB: Practical-6  | 3          | 3          |          |            |            | 3          |
| SEC6: Sericulture   | 3          |            |          | 3          |            |            |
| <b>Average</b>  | <b>2.6</b> | <b>2.3</b> | <b>3</b> | <b>2.8</b> | <b>2.7</b> | <b>2.3</b> |



## CO-PSO Achieved

| Courses / PSO's   | PSO1       | PSO2       | PSO3     | PSO4       | PSO5       | PSO6       |
|---|------------|------------|----------|------------|------------|------------|
| Animal Diversity  | 3          | 3          |          |            |            | 3          |
| Animal Diversity<br>Practical -1  | 2.8        |            |          |            |            | 3          |
| Comparative<br>Anatomy and<br>Developmental<br>Biology of Vertebrates                 | 2.2        | 2.2        |          |            | 2.2        | 2.2        |
| Comparative<br>Anatomy and<br>Developmental<br>Biology of Vertebrates<br>Practical -2 | 2          | 2          |          |            | 2          | 2          |
| Physiology and<br>Biochemistry  |            |            | 3        |            | 3          |            |
| Physiology and<br>Biochemistry<br>Practical -3  |            |            | 3        |            | 3          |            |
| Genetics and<br>Evolution   | 3          |            |          | 3          | 3          |            |
| Genetics and<br>Evolution Practical -<br>4  | 3          |            |          | 3          | 3          |            |
| Cell and Molecular<br>Biology   |            |            | 3        | 3          | 3          |            |
| Cell and Molecular<br>Biology Practical -5  |            |            | 3        | 3          | 3          |            |
| SEC5:Apiculture   | 1.4        |            |          | 1.4        |            |            |
| Ecology, Wildlife<br>Biology and Animal<br>Behaviour                                  | 2.1        | 2.1        |          |            |            | 2.1        |
| EWBAB: Practical-6  | 3          | 3          |          |            |            | 3          |
| SEC6: Sericulture   | 3          |            |          | 3          |            |            |
| <b>Average</b>  | <b>2.5</b> | <b>2.2</b> | <b>3</b> | <b>2.7</b> | <b>2.7</b> | <b>2.5</b> |

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## DEPARTMENT OF ZOOLOGY

### Level of Course Outcome Attainment

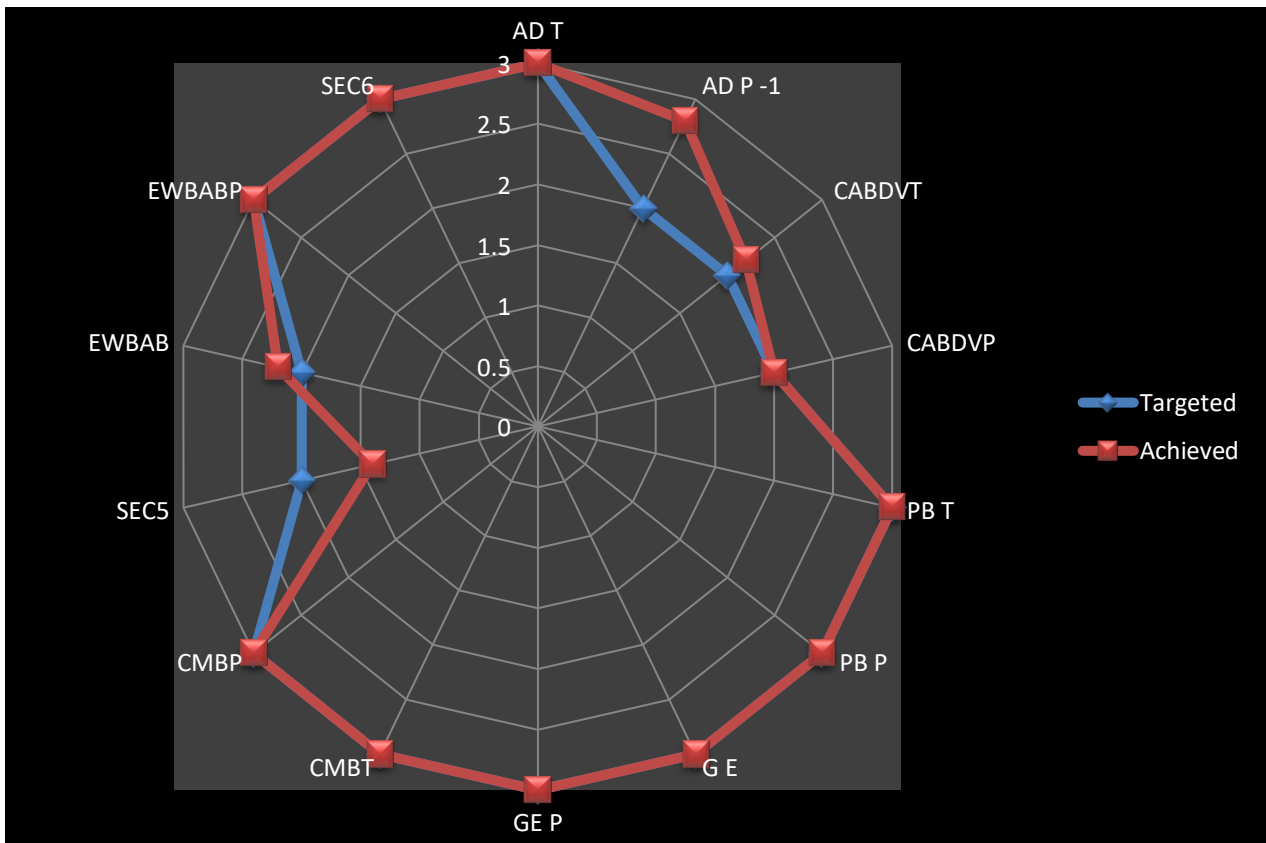
| Year    | SEM    | SUBJECT   | LEVEL OF ATTAINMENT |          |
|---------|--------|---|---------------------|----------|
|         |        |   | TARGETED            | ACHIEVED |
| 2018-19 | FIRST  | Animal Diversity  | 3                   | 3        |
|         |        | Animal Diversity Practical -1   | 2                   | 2.8      |
|         | SECOND | Comparative Anatomy and Developmental Biology of Vertebrates              | 2                   | 2.2      |
|         |        | Comparative Anatomy and Developmental Biology of Vertebrates Practical -2 | 2                   | 2        |
| 2019-20 | THIRD  | Physiology and Biochemistry   | 3                   | 3        |
|         |        | Physiology and Biochemistry Practical -3                                  | 3                   | 3        |
|         | FOURTH | Genetics and Evolution  | 3                   | 3        |
|         |        | Genetics and Evolution Practical -4                                       | 3                   | 3        |
| 2020-21 | FIFTH  | Cell and Molecular Biology  | 3                   | 3        |
|         |        | Cell and Molecular Biology Practical -5                                   | 3                   | 3        |
|         |        | SEC5: Apiculture  | 2                   | 1.4      |
|         | SIXTH  | Ecology, Wildlife Biology and Animal Behaviour                            | 2                   | 2.2      |
|         |        | EWBAB: Practical-6  | 3                   | 3        |
|         |        | SEC6: Sericulture   | 3                   | 3        |

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## DEPARTMENT OF ZOOLOGY

### Level of Course Outcome Attainment



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(Affiliated to Gulbarga University, Kalaburagi)  
NAAC RE-ACCREDITED WITH 'A' Grade CGPA 3.24



Estd 1970

KARNATAK ARTS, SCIENCE & COMMERCE COLLEGE, BIDAR

College with Potential for Excellence Status Awarded by UGC New Delhi  
ISO 9001: 2015

## DEPARTMENT OF ZOOLOGY

### Level of Program Outcome Attainment

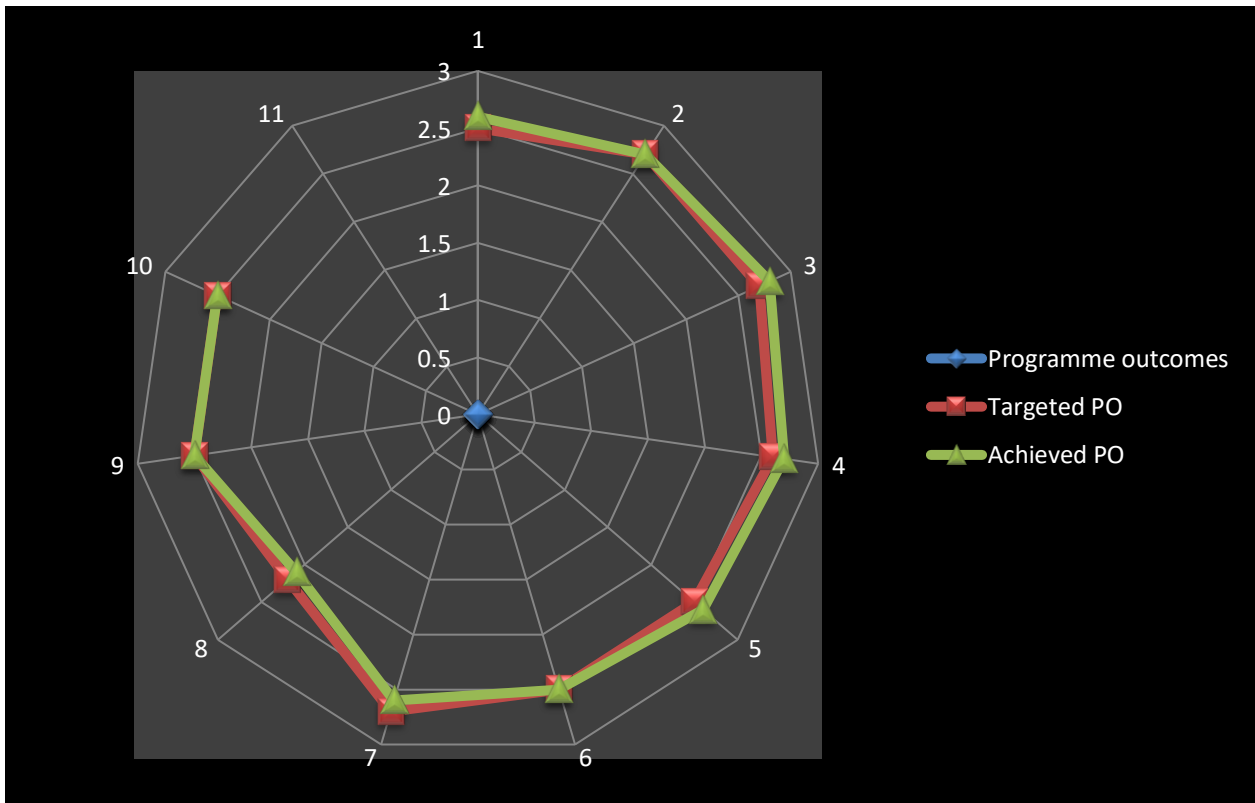
| PO   | LEVEL OF ATTAINMENT |          |
|------|---------------------|----------|
|      | TARGETED            | ACHIEVED |
| PO1  | 2.5                 | 2.6      |
| PO2  | 2.7                 | 2.7      |
| PO3  | 2.7                 | 2.8      |
| PO4  | 2.6                 | 2.7      |
| PO5  | 2.5                 | 2.6      |
| PO6  | 2.5                 | 2.5      |
| PO7  | 2.7                 | 2.6      |
| PO8  | 2.2                 | 2.1      |
| PO9  | 2.5                 | 2.5      |
| PO10 | 2.5                 | 2.5      |

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## DEPARTMENT OF ZOOLOGY

### Level of Program Outcome Attainment



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## DEPARTMENT OF ZOOLOGY

### Level of Program Specific Outcome Attainment

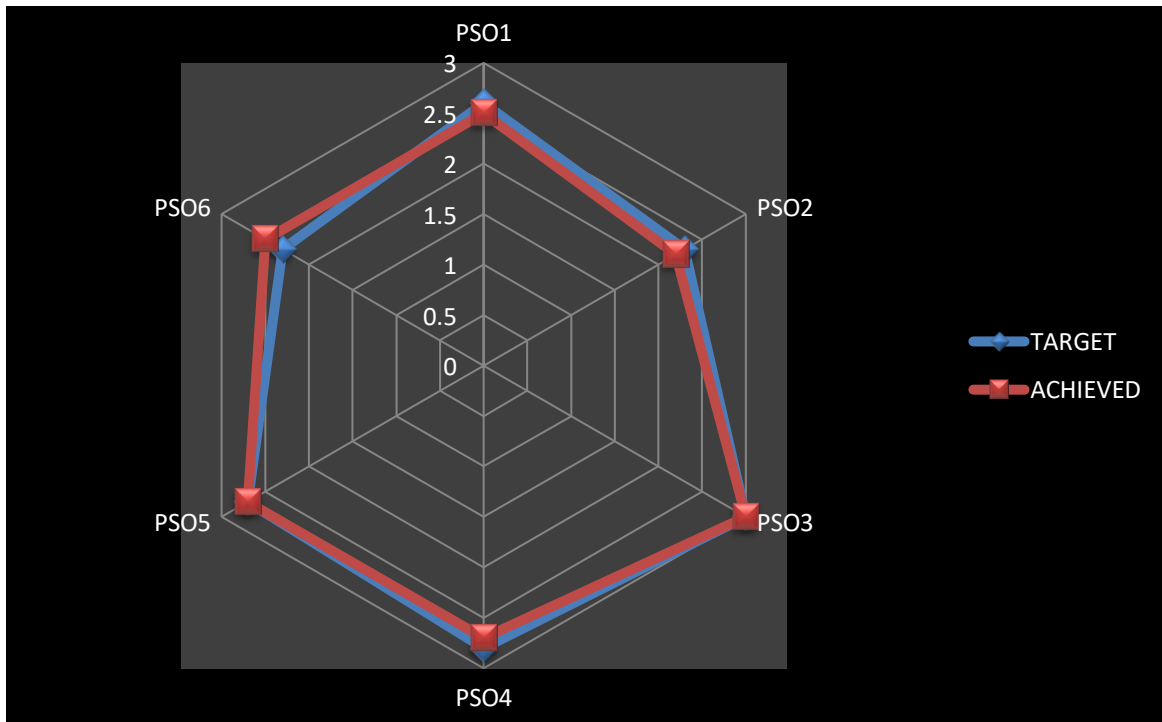
| PSO  | LEVEL OF ATTAINMENT |          |
|------|---------------------|----------|
|      | TARGETED            | ACHIEVED |
| PSO1 | 2.6                 | 2.5      |
| PSO2 | 2.3                 | 2.2      |
| PSO3 | 3                   | 3        |
| PSO4 | 2.8                 | 2.7      |
| PSO5 | 2.7                 | 2.7      |
| PSO6 | 2.3                 | 2.5      |

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## DEPARTMENT OF ZOOLOGY

### Level of Program Specific Outcome Attainment



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### COURSE OUTCOMES: ANIMAL DIVERSITY

| COs | Outcome Statement  | PO/PSO            | Cognitive Level |
|-----|--|-------------------|-----------------|
| CO1 | Examine the structure and function of Invertebrate phylum.                 | PO1,PSO1          | K4              |
| CO2 | Illustrate the classification of Invertebrate phylum.                      | PO1,PO5,<br>PSO2  | K3              |
| CO3 | Design different classes of phylum Vertebrates.                            | PO2,PO5,<br>PSO2. | K6              |
| CO4 | Describe different classes of Metazoa.                                     | PO1,PO10.         | K2              |
| CO5 | Identify the importance of different classes and organisms of each phylum. | PO7, PO5<br>POS6  | K2              |
| CO6 | Compare and contrast the general characteristics of each phylum.           | PO5               | K4              |

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## COURSE OUTCOMES: COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY

| COs | Outcome Statement  | PO/PSO                         | Cognitive Level |
|-----|--|--------------------------------|-----------------|
| CO1 | Understanding the basic concepts of vertebrates.   | PO1,PO2<br>PSO2                | K2              |
| CO2 | Compare aortic arches all the class of vertebrates.  | PO1,<br>PO2,PO5,<br>PO10, PSO6 | K4              |
| CO3 | Describe the early development frog.   | PO10, PO3<br>PSO2              | K2              |
| CO4 | Differentiate speciation and determination.  | PO3, PO10<br>PSO1, PS04.       | K4              |
| CO5 | Illustrate the origin development of elementary canal.   | PO10, PSO3.<br>PSO5.           | K3              |
| CO6 | Determine the development of gonads and explain the modification genital ducts in Vertebrates. | PO10,PSO1,<br>PSO2, PSO6.      | K5              |

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## COURSE OUTCOMES: BIOCHEMISTRY AND PHYSIOLOGY

| COs | Outcome Statement  | PO/PSO             | Cognitive Level |
|-----|--|--------------------|-----------------|
| CO1 | Explain lipid metabolism and its importance.   | PO3,PSO3           | K3              |
| CO2 | Compare beta, omega oxidation of fatty acids.  | PO2,PSO1           | K4              |
| CO3 | Write about the role of enzymes with respect to metabolic reaction.                          | PO2,PSO5           | K2              |
| CO4 | Describe the functional anatomy of kidney and heart.   | PO6,PSO5           | K2              |
| CO5 | Apply the knowledge of physiology to interact effect of exercise on cardiovascular activity. | PO7,PSO2           | K3              |
| CO6 | Discuss the structure of skeletal muscles and mechanism of muscle contraction.               | PO1,PO2, PSO3,PSO5 | K2              |

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## COURSE OUTCOMES: GENETICS AND EVOLUTION

| COs | Outcome Statement  | PO/PSO                       | Cognitive Level |
|-----|--|------------------------------|-----------------|
| CO1 | Describe the different concepts to study chromosomal inheritance       | PO1,PO7,<br>PS04             | K2              |
| CO2 | Explain Mendelian and Non mendelian Inheritance                        | PO2, PO3,<br>PS03            | K2              |
| CO3 | Apply the concepts and genetic processes for physical mapping of gene. | PO6, PO4,<br>PS02            | K3              |
| CO4 | Analyse the variation in gene value to environmental factor.           | PO3, PO5,<br>PS04            | K4              |
| CO5 | Write a report on chromosomal aberration                               | PO8,PO5<br>PS01,<br>PS06     | K2              |
| CO6 | Compare Darwinism and Neo-Darwinism                                    | PO3, PO10,<br>PS01,<br>PSO5. | K4              |

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## COURSE OUTCOMES: CELL AND MOLECULAR BIOLOGY

| COs | Outcome Statement  | PO/PSO              | Cognitive Level |
|-----|--|---------------------|-----------------|
| CO1 | Describe the concept of cell biology protein, Sorting, cell to cell signaling. | PO2,PSO2            | K2              |
| CO2 | Differentiate the concept and mechanism of programme cell death and Necrosis.  | PO3,PSO5            | K4              |
| CO3 | Illustrate the biology of cancer.  | PO7,PSO3            | K3              |
| CO4 | Identify and draw diagrams of cell membrane and cell organelles.               | PO8,PSO2            | K2              |
| CO5 | Examine the structure all cell organelles.                                     | PO4,P10,<br>PSO5    | K4              |
| CO6 | Understand the concept of transcription and translation.                       | PO10,PSO1,<br>PSO5. | K1              |

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## COURSE OUTCOMES: APICULTURE

| COs | Outcome Statement   | PO/PSO              | Cognitive Level |
|-----|---|---------------------|-----------------|
| CO1 | Understand the basics of beekeeping tools, equipments and managing behives. | PO1,P07,<br>PSO1    | K2              |
| CO2 | Understand the primary lifecycle of the honeybees.                          | PO5,P09,PS<br>O2,   | K2              |
| CO3 | To learn and manage behives for honey production and pollination.           | PO6,P05<br>PSO1     | K3              |
| CO4 | To support self-employment for the students.                                | PO7, PO5<br>PSO2    | K5              |
| CO5 | Analyse the students about pollination of flora.                            | PO9, P10,<br>PSO2   | K4              |
| CO6 | To know about difference between ApisIndica and Apismellifera.              | PO8,<br>PO5<br>PSO2 | K4              |

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**COURSE OUTCOME: ECOLOGY, WILDLIFE BIOLOGY AND ANIMAL BEHAVIOUR.**

| COs | Sl. no | Outcome Statements   | PO/PSO                  | Cognitive Level |
|-----|--------|--|-------------------------|-----------------|
| CO1 | 1.     | Describe the types of behaviour.   | PO1, PO4,<br>PSO1       | K1              |
| CO2 | 2.     | Classify different behavioural patterns of Animals.  | PO3, PO6,<br>PSO3P      | K3              |
| CO3 | 3.     | Illustrate and demonstrate the patterns of population and its dynamics.  | PO8, PO2,<br>PSO1       | K2              |
| CO4 | 4.     | Describe basic concepts of ecology, different types of ecosystem, outline community organisation and its structure.                                      | PO5, PO2,<br>PSO4       | K1              |
| CO5 | 5.     | Compare, evaluate and then evolve strategies of population study related to dispersal and growth, compile the data of case studies.                      | PO10, PSO6              | K5              |
| CO6 | 6.     | Develop an in-depth knowledge of the large scale ecology. Write a report on global and landscape ecology and human influence on atmospheric composition. | PO5,PSO1,<br>PSO2,PSO6. | K6              |

**HOD**

**PRINCIPAL**



### COURSE OUTCOME: SERICULTURE [SEC]

| COs | Outcome Statements  | PO/PSO              | Cognitive Level |
|-----|---|---------------------|-----------------|
| C01 | Gain skill with hands on training on mulberry cultivation and carry forward to the field. | PO1,P07,<br>PSO1    | K4              |
| C02 | Acquire knowledge and develop skill in silkworm rearing and support silkworm farming.     | PO5,PO9,PSO2,       | K3              |
| C03 | Understand about the various skills that are necessary for self-employment.               | PO6,PO5<br>PSO1     | K3              |
| C04 | Explain about the maintenance of the farm and silkworm rearing.                           | PO7, PO5<br>PSO2    | K2              |
| C05 | Examine about the cultivation of mulberry and silk rearing.                               | PO9, P10,<br>PSO2   | K4              |
| C06 | Identify importance of sericulture in public private and government sector.               | PO8,<br>PO5<br>PSO2 | K2              |

**HOD**

**PRINCIPAL**