## **ADD-ON COURSE, 2024-2025 IN ZOOLOGY**

## "APICULTURE AND AQUACULTURE"

DEPARTMENT OF ZOOLOGY, DHRUBA CHAND HALDER COLLEGE

Apiculture, also known as beekeeping, refers to the practice of nurturing and culturing honeybees by using numerous commercial and scientific methods. Apiculture, or beekeeping can be a lucrative business venture that can provide employment opportunities, sustainable livelihoods, and economic growth. Beekeeping needs less space with low investment but fetches quick return and generates employment opportunity. It can be done in homestead areas. The scope of Apiculture is vast and includes diversification beyond honey production. It encompasses the production and marketing of other bee products like pollen, propolis, royal jelly, bee's wax, and bee venom. Additionally, there is significant potential in the sale of bee packages and the rearing and sale of pedigree queen bees. It generates employment and provides a supplementary income to a large rural population, including agriculturists and horticulturists. On the other hand, Aquaculture entrepreneurship is the combination of entrepreneurship and aquaculture, where people establish aqua businesses and engage in fish farming or trading. Aquaculture can also be defined as the breeding, growing, and harvesting of fish and other aquatic plants also known as farming in water. It is an environmental source of food and commercial products that help to improve healthier habitats and are used to reconstruct the population of endangered aquatic species.









COURSE COORDINATOR - DR.RUPANWITA SARKAR (ASSISTANT PROFESSOR OF ZOOLOGY)

**COURSE DURATION - 30 Hours** 

COMMENCEMENT OF CLASSES FROM - 13th DECEMBER, 2024 (FRIDAY)

**DURATION OF EACH CLASS - 2 HOURS** 



## **COURSE SCHEDULE**

SERIAL NUMBER	COURSE CONTENT
DAY1	INTRODUCTORY CLASS
DAY 2	BIOLOGY OF BEES- TYPES OF HONEY BEES, GENERAL MORPHOLOGY OF HONEY BEES, SOCIAL ORGANIZATION OF BEE COLONY
DAY 3	REARING OF BEES- MODERN BEE KEEPING EQUIPMENTS AND METHODS OF EXTRACTION OF HONEY
DAY 4	REARING OF BEES- ARTIFICIAL BEE REARING, BEE HIVES-NEWTON AND LANGSTROTH BOX, BEE PASTURAGE, SELECTION OF BEE SPECIES
DAY 5	DISEASES AND ENEMIES-CONTROL AND PREVENTIVE MEASURES
DAY 6	ECONOMY-PRODUCTS OF APICULTURE AND ITS USES -HONEY, BEE WAX, PROPOLIS, POLLEN ETC
DAY7	ENTREPRENEURSHIP IN APICULTURE-BEE KEEPING INDUSTRY
DAY 8	ENTREPRENEURSHIP IN APICULTURE- MODERN METHODS IN EMPLOYING ARTIFICIAL HORTICULTURAL BEE HIVES FOR CROSS POLLINATION IN HORTICULTURAL GARDEN
DAY 9	INTRODUCTORY CLASS ON AQUACULTURE AND INDIGENOUS AND EXOTIC FISH CULTURE
DAY 10	COMPOSITE FISH CULTURE
DAY 11	INDUCED BREEDING OF CARPS. SYNTHETIC HORMONES IN HYPOPHYSATION
DAY 12	FISH PRESERVATION AND BY-PRODUCTS
DAY 13	GIS AND REMOTE SENSING IN FISHARIES
DAY 14	DOUBT CLEARING AND QUESTION -ANSWER SESSION
DAY 15	COURSE EVALUATION