

RIMT UNIVERSITY
DEPARTMENT OF ZOOLOGY
DETAILED SYLLABUS FOR M. PHILL. & PH.D COURSE WORK (CORE SUBJECT)
SUBJECT: ADVANCES IN ZOOLOGY
Paper code- PHD ZOO-1103A

Section-A

- i. Biosystematics and taxonomy
- ii. behavioral taxonomy
- iii. Social insects: Introduction
Hymenoptera and Isoptera
- iv. Insects as pollution indicators
- v. Sericulture
- vi. Aquatic insects- aquatic insect orders and adaptations

Section-B

- i. Gene cloning in prokaryotes
- ii. Cutting DNA restriction enzymes
- iii. Expression of foreign DNA in Prokaryotes
- iv. Expression of foreign DNA in Eukaryotes
- v. Applications of gene manipulation

Section-C

- i. Cell specification
- ii. Cell adhesion
- iii. Metamorphosis in insects
- iv. hormonal control of metamorphosis

Section-D

- i. Insects as vectors of human pathogens
- ii. Protozoan and helminth diseases