UNIT I
Non-Chordata: General organisation - Classification with diagnostic features upto classes. Evaluationary relationship among taxa, symmetry.
Protozoa: Structure, reproduction and life history of Amoeba, Paramecium, Trypanosoma, Plasmodium, Monocystis, Leishmania - locomotion, nutrition, economic importance. Porifera: Sponges canal system, skeleton, reproduction and economic importance.

UNIT II
Prochordata: Amphioxus, Balanoglossus - Ascidian retrogressive Metamorphosis, neoteny and affinities.
Chordata: General Organisation - Characters, Outline, classification upto class level.
Pisces: Locomotion, migration, respiration, Parental care, economic importance; structure and affinities of dipnoi.
Birds: Origin - flight adaptations - mechanism of flight - double respiration - migration - Flightless birds.
UNIT III

UNIT IV

UNIT V
UNIT VI


UNIT VII


UNIT VIII


UNIT IX

Economic Zoology: Parasitism and Commensalism - Protozoan Parasites and diseases, helminthes parasites and diseases of man and domestic animals; Beneficial and harmful insects. Insect pests on crops and stored products - Control methods. IPM. Sericulture, apiculture, lac culture, seaweed culture, vermiculture, - oyster culture and pearl formation, poultry, pisciculture and induced breeding, Shell fisheries, Aquaculture practices in Tamil Nadu and their impact on the environment and on agriculture.
UNIT X

Instrumentation and Bio-techniques: Microscopy-Phase contrast, fluorescent, TEM, SEM. Colorimetric techniques, Centrifugation techniques. Fixation, staining techniques. Electrophoretic techniques: Principles, AGE and PAGE. DNA finger printing, RFLP, RAPD and AFLP.