

B.Sc. Pt.-III/ Semester-V
Subject Code: BCH- S 501
w.e.f. the session 2022-23 and onwards

SEC-3: PESTICIDE CHEMISTRY

MM : 70
Credits: 04

Exam.Hrs.: 03
Lectures: 30

NOTE: The question paper shall consist of Two sections (Sec.-A and Sec.-B). Sec.-A shall contain 10 short answer (about 150 words) type questions of SIX marks each and student shall be required to attempt any five questions. Sec.-B shall contain 08 descriptive type questions of TEN marks each and student shall be required to attempt any four questions. Both sections shall have questions from the entire syllabus. The previous year paper/model paper can be used as a guideline and the following syllabus should be strictly followed while setting the question paper.

General introduction to pesticides: natural(Pyrethroids- Pyrethrins, Jasmoline, Cinerin; Rotenone, Nicotinoids, Ryania, Neem) and synthetic(Inorganic and Organic pesticides), classification, benefits and adverse effects, changing concepts of pesticides, structure activity relationship.

Synthesis and technical manufacture and uses of representative pesticides in the following classes: Organochlorines (DDT, Gammexene,); Organophosphates, phosphonates and thiophosphates (Malathion, Parathion, TEPP, Schradan, Dimefox); Carbamates (Carbofuran, Baygon and carbaryl); Quinones (Chloranil), Anilides (Alachlor and Butachlor).

Methods to calculate acidity/alkalinity in given sample of pesticide formulations as per BIS specifications.

Reference Book:

- R. Cremlyn: *Pesticides*, John Wiley.