

[This question paper contains 2 printed pages ]

*Your Roll No*

**7153**

**J**

**M.Sc./II**

**AGROCHEMICALS AND PEST MANAGEMENT**

**PAPER XIII—Toxicology of Pesticides**

*Time* 3 Hours *Maximum Marks* 38

*(Write your Roll No on the top immediately  
on receipt of this question paper )*

*Attempt five questions in all, including*

*Question No 7 which is compulsory*

1. Give an account of the various components and active sites of Cytochrome P-450 Explain the catalytic cycle involved 7
2. Write notes on 7
  - (a) UDP-Glucuronyl transferase
  - (b) Transacetylases
3. Describe the Phase I reactions of the following insecticides 7
  - (a) Parathion
  - (b) Schradan
  - (c) Chlorpyrifos
  - (d) Phorate
  - (e) Quinalphos

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- 4 Describe briefly extrasomal reactions of pesticide metabolism in animals with suitable example of organophosphorous compounds
- 5 (a) Explain the mode of action of organochlorine pesticides in animals
- (b) How the mode of action of organochlorine pesticide differs from organophosphorous pesticides 7
- 6 (a) Explain the differences between mutagenicity, carcinogenicity and teratogenicity 7
- (b) Differentiate between the ADI and NOEL 7
- 7 (a) Mode of action of paraquat
- (b) Epoxidation
- (c) Nitroreductase
- (d) W.P
- (e) Mode of action of Bt
- (f) Rodenticides
- (g)  $LD_{50}$  and  $LC_{50}$  10