Roll No.	Total No. of Pages : 01
Total No. of Questions : 08	
PHD (Pharmacy)	
PHARMACOLOGY	

Time : 3 Hrs. Max. Marks : 100

INSTRUCTIONS TO CANDIDATES:

- 1. Attempt any FIVE questions out of EIGHT questions.
- 2. Each question carries TWENTY marks.
- 1. What are main families of drug receptors? Give a detailed account of G-protein coupled receptors.
- 2. What is CPCSEA? Discuss critically about CPCSEA guidelines for the use of laboratory animals?

What are toxicity studies? Describe procedure to carry out sub-acute toxicity of a

3. molecule.

Write notes on following:

- 4. a) Transgenic animals
 - b) Animal cell lines

What is ELISA? Indicate various types of ELISA and describe principle and procedure of sandwich ELISA along with applications of ELISA.

- a) Write a note on inflammatory mediators.
- 6. b) Add a note on immunotherapy.

Write notes on following:

- 7. a) PCR
 - b) Phases of clinical trials as per schedule Y.
 - a) Write a note on principle and applications of RIA.
- b) Add a note on short term regulation of cellular response.

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