

**M.PHARM**  
**(SEM I) THEORY EXAMINATION 2020-21**  
**PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING METHODS**

*Time: 3 Hours*

*Total Marks: 75*

**Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

**10 x 2 = 20**

**1. Attempt all questions in brief.**

a.	Write the principle of bioassay.
b.	Enlist the applications of different species and strains of animals in experimental pharmacology.
c.	What are transgenic animals?
d.	What are the methods of euthanasia?
e.	Enlist the role of CPCSEA.
f.	What is a heterogeneous immunoassay?
g.	Enlist preclinical screening models for anxiolytics agents.
h.	Mention preclinical screening models for immunomodulators.
i.	Write in brief about limitations of animal experimentation and alternate animal experiments.
j.	Enlist preclinical screening models for anti-cancer agents.

**SECTION B**

**2 x 10 = 20**

**2. Attempt any two parts of the following:**

a.	Discuss the regulations and ethical requirement for the usage of experimental animals.
b.	Write detail account of various animals used in the drug discovery process and good laboratory practices in maintenance and handling of experimental animals.
c.	Discuss in-vitro and in-vivo preclinical evaluation of drugs for neurodegenerative diseases.

**SECTION C**

**7 x 5 = 35**

**3. Attempt any five parts of the following:**

a.	Write in detail accounts of hepatoprotective screening methods.
b.	Discuss preclinical evaluation of drugs with special references to recent experimental techniques in the drug discovery and development.
c.	Discuss the basic knowledge of preclinical screening of new substances for the pharmacological activity using in vivo, in vitro models for anti-asthmatics agents.
d.	Write in brief about preclinical screening models for analgesics and anti-inflammatory agents.
e.	Write in brief about preclinical screening of new substances for the pharmacological activity using in vivo models for anti-diabetic drugs.
f.	Write in brief about preclinical screening of new substances for the pharmacological activity using in vivo models for anti-ulcer agents.
g.	Write in details about preclinical screening models for antihypertensives drugs.