Seat No.: _____   Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Ph. SEMESTER – VIII-EXAMINATION – SUMMER-2022

Subject Code: BP810TT   **Date: 04/06/2022**
Subject Name: Experimental Pharmacology
Time: 10:30am to 01:30pm   **Total Marks: 80**
Instructions:
1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1. (a) List out the different laboratory animals (indicate species and strains) used for Preclinical **06**
experiments. Discuss in brief the applications of Rat.
(b) Write in brief about use of transgenic animals in Preclinical Research. **05**
(c) What is euthanasia? Discuss CPCSEA approved methods of euthanasia. **05**

Q.2. (a) Explain the following in brief (any two): **06**
1.Sham and Positive Control   2. Human Equivalent Dose   3. Research Hypothesis
(b) Write a note on the student's 't' test. **05**
(c) Discuss the animal/preparation preferred for preclinical evaluation of the following: **05**
1. Antihistamines   2. Intradermal local anesthetics   3. Mydriatics
4. NSAIDs   5. Breast cancer

Q.3. (a) Enumerate models used for screening of Parasympatholytics. Discuss any one in vivo **06**
model.
(b) Discuss in brief in vitro methods for screening of sympathomimetics **05**
(c) Discuss the pharmacological evaluation of Neuromuscular blockers. **05**

Q.4. (a) Enumerate methods for evaluation of Antialzheimer agents. Discuss the parameters used **06**
for assessment of Alzheimer's disease in preclinical models.
(b) Outline the models used for screening of antidepressants. Write in brief about the Porsolt **05**
test.
(c) Discuss in brief the evaluation of sedatives. **05**

Q.5. (a) Classify the methods used for evaluation of analgesics. Describe the thermal **06**
method in brief.
(b) List out methods for screening of antiepileptics. Discuss in detail MES model. **05**
(c) Enlist the models used for Antiparkinson activity. Discuss in detail the MPCP model. **05**

Q.6. (a) Enumerate animal models of type I Diabetes. Discuss the use of Streptozotocin in **06**
preclinical research.
(b) Enumerate models used for hypertension. Describe surgically induced **05**
hypertension models in brief.
(c) Enumerate models used for screening of Antiasthmatics. Discuss any one method **05**
for evaluation of Bronchodilators.

Q.7. (a) Explain the use of following in Preclinical screening: (any two) **06**
1. Cooke's pole   2. Morris Water Maze   3. Plethysomometer
(b) Discuss in detail the Lipschitz model for evaluation of diuretics. **05**
(c) Enumerate the models used for inducing dyslipidemia. Discuss in brief Triton **05**
induced model.

****