Birla Institute of Technology and Sciences, Pilani, Pilani-Campus, Rajasthan
Mid-term examination (CLOSED BOOK)
I Semester 2023-2024
Course Name: Screening Methods and Techniques in Pharmacology   Course Code: PHA G619
Date: 10/10/2023   Duration: 55 min   Max. Marks: 20

Instructions
1. **All questions are compulsory.**
2. **Please write the correct question number in the answer sheets.**
3. **Draw Diagrams wherever necessary.**

1. **Explain the following :**   **[2+2+2+2=8]**
   (i) **Difference between passive and active avoidance test on mice/rats**
   (ii) **Olfactory bulbectomy in rats causes depression**
   (iii) **Criteria for selection of animal for development of disease model**
   (iv) **Role of GWAS in drug development**

2. **The recommended dose of marketed multi-vitamin syrup for women is 5 ml thrice daily. In an experimental study, you are using this syrup as a standard control against sarcopenia. You have three rats, each weighing 170 g, 200 g, and 250 g, respectively. Give the detailed calculation of the dosage (as per appropriate volume) for each animal for oral administration and preparation of stock solution from the given formulation.   [6]**

3. **Explain in detail mouse defense test battery as a model for screening potential anxiolytics.   [6]**

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Mid-term examination (OPEN BOOK)
I Semester 2023-2024
Course Name: Screening Methods and Techniques in Pharmacology   Course Code: PHA G619
Date: 10/10/2023   Duration: 35 min   Max. Marks: 10

Instructions
1. **All questions are compulsory.**
2. **Please write correct question number in answer sheets.**
3. **Draw Diagrams wherever necessary.**

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1. **What is the basis of using sound in genetic model of seizures? Explain in detail how a potential anti-epileptic drug can be evaluated in this model. What is the rationale of using lethargic mutant mice?** **[4]**

2. **What is mCPP? What are its target receptors and mechanism to induce anxiety? What parameters can be evaluated using this model?** **[3]**

3. **An increase in the strength of a relatively small number of synapses can bind connected neurons into a circuit that stores a new memory. Why and how are some synaptic connections strengthened while others are lost?** **[3]**