

## **ANNEXURE A**

### **Technical Specification of Contextual Fear Conditioning Apparatus for Rat**

1. The system should be used for testing contextual fear condition behavior of rats having single behavioral chamber.
2. The avoidance enclosure should be divided into two compartments of which one is unconditioned stimulus in the form of electric shock and conditioned stimulus in the form of cue led light and sound.
3. The strength of the electrical shock should be adjustable.
4. The sound frequency range should be of 200-13,000Hz in 100Hz steps with automatic calibration
5. The system should be made of makrolon & stainless steel or acrylic for easy cleaning and can detect motion of animal controlled by multiple infrared beams with lamp intensity ranges from 0-150 lux.
6. Avoidance cage dimension should be not less than 48cm X 23cm X 27 cm with true Constant-Current, 100ms pulse every 250ms (4Hz).
7. Maximum stimulus current should be no greater than 1.5 milli ampere and should constantly variable with stimulus frequency between 200Hz to 13 KHz.
8. Compatible software should come with the system to control & measure parameters from rat like exploration duration, total time of trials, maximum trial duration, inter trial duration, CS light intensity, start and duration, CS sound intensity, frequency, start and duration.
9. The warranty period should be minimum 36 months from the date of installation of apparatus.
10. Accessories: An Active-Passive Avoidance task arrangement in the same apparatus.