

Time :3 Hours

Total marks: 75

## Q I. MCQs (Each question: 1 Mark)

20M

1. \_\_\_\_\_ is used to induce ulcer in rats
  - A. Alcohol
  - B.  $AlCl_3$
  - C.  $MgSO_4$
  - D. Sucralfate
  
2. Negative geotaxis is studied in
  - A. CNS screening methods
  - B. CVS screening methods
  - C. screening of Anti-Asthmatic drugs
  - D. Anti-emetic activity
  
3. MPTP model in animals is studied for
  - A. Antipsychotic activity
  - B. Antiparkinsonian activity
  - C. Screening of CVS drugs
  - D. Screening of hepatoprotective drugs
  
4. Inhibition of muricidal behavior means
  - A. Failure to kill the mouse
  - B. Inhibition of atrial flutter
  - C. Nose pocking behavior
  - D. Failure to kill the bacteria
  
5. Plethysmometer is used to screen the
  - A. Antipyretic activity
  - B. Anti-inflammatory activity
  - C. Analgesic Activity
  - D. Immunomodulatory activity
  
6. The 3Rs of animal research stand for \_\_\_\_\_
  - A. Replacement, Regain and Refinement
  - B. Replacement, Reduction and Redefine
  - C. Replacement, Reduction and Refinement
  - D. Replacement, Rejection and Redefine
  
7. Myocardial infarction can be induced in rats by
  - A. Isosorbide dinitrate
  - B. Isoproterenol
  - C. Albumin
  - D. Metformin
  
8. Induction of Type I diabetes is achieved by using
  - A. Methylene blue
  - B. Streptozotocin
  - C. Glucose
  - D. Fructose

9. In enzyme bioassay, the enzyme
- A. is bound by the antibody's antigen binding site
  - B. is attached to the well of microtiter plate
  - C. is conjugated to the suspect antigen
  - D. is bound to the constant region of secondary antibody
10. \_\_\_\_\_ reported to be block the clearance of TG-rich lipoproteins and produces acute hyperlipidemia
- A. Triton X-100
  - B. Cholesterol rich diet
  - C. Triglyceride rich diet
  - D. High fat diet
11. The standard drug used for hepatoprotective drugs screening is
- A. Albumin
  - B. Arjuna
  - C. Silymarin
  - D. Acarbose
12. In-vivo method for testing central analgesic activity is
- A. Writhing test
  - B. Hole board test
  - C. Hot Plate test
  - D. Mechanical visceral pain model in rat
13. \_\_\_\_\_ is commonly used radioactive isotope used in radioimmunoassay.
- A. Sulphur-35
  - B. Iodine-125
  - C. Phosphorus-32
  - D. Nitrogen-14
14. SHAY test is
- A. ACh inhibition in hippocampal region
  - B. Pylorus Ligation Test
  - C. Acute hypertension in rats
  - D. Tail flick test
15. Zucker rats are preferred in assessment of
- A. Metabolic conditions
  - B. Schizophrenia
  - C. Antiasthmatic effect
  - D. Antineoplastic effects
16. Which of the following is a commonly used agent to induce diarrheal condition
- A. Pantoprazole
  - B. Ketamine HCl
  - C. Pentobarbitone sodium
  - D. Castor oil

17. Alloxan in anti-diabetic screening model produces
- Triphasic insulin release
  - Biphasic insulin release
  - Monophasic insulin release
  - Biphasic glucose secretion
18. Writhing test is
- Stretch, extension of hind limbs or contraction of abdomen
  - Cleaning that mouse does on its fur and body
  - Rearing and stretching of forelimbs
  - Inability to move normally
19. Following chemical induces seizures except
- Pentelenetetrazole
  - Isoniazid
  - Strychnine
  - Levodopa
20. \_\_\_\_\_ is an experimental immunopathy.
- Incision wound
  - Adjuvant arthritis
  - Excision wound
  - NSAID induced peptic ulcer

**Q II. Answer any two questions. (Each question: 10 Marks)**

**20M**

- Enumerate various models for evaluation of Alzheimer's Activity and explain any two in details.
- Enlist in-vivo and in-vitro preclinical screening method for anti-inflammatory activity. Explain any two in vivo methods.
- Give examples of antidiabetic drugs. Mention preclinical screening models of antidiabetic drugs. Describe any two methods.

**Q III. Answer any seven questions. (Each question: 5 Marks)**

**35M**

- Elaborate MTT assay for evaluation of anticancer drugs
- Discuss one in-vivo screening method for the pre-clinical evaluation of Anti-Parkinson's activity.
- Discuss any one method for preclinical evaluation of immunomodulators
- Write a note on ELISA method.
- Enumerate preclinical screening methods for antihypertensive activity. Describe any one in details.
- Explain any two methods which are alternative to animals.
- Explain any one preclinical screening method for anxiolytics.
- What are different methods for screening of analgesic activity. Explain tail flick method in brief.
- Define immunoassay. Explain the Homogenous Immunoassay System in detail.