



**M.Sc. II Semester (CBCS) Degree Examination,
September/October - 2022**

ZOOLOGY

21ZOO2S2LP : Non-Clinical Safety Evaluation of Drugs

Time : 1 Hours

Maximum Marks : 30

Note : Answer the following MCQ in an OMR provided. (each question carries **ONE** mark)

1. OECD was established in _____.
(A) 1963 (B) 1961 (C) 1962 (D) 1960
2. Full form of OECD is :]
(A) Organization for Economic Cooperation and Development
(B) Orientation for Economic Cooperation and Development
(C) Organization for Economic Co-operative and Development
(D) Organization for Economic Cooperation and Discussion
3. The full form of GLP is :
(A) Good Lab Patience (B) Good Leader Practice
(C) Good Laboratory Practices (D) Good Lab Promotion
4. SOP denotes :
(A) Standard Operating Procedures
(B) Standard Operating Principles
(C) Standard of Processes
(D) Standard Operation Procedures
5. Which of the following type(s) of Personal Protective Equipment (PPE) is frequently used ?
(A) Safety glasses (B) Gloves
(C) Lab coats (D) All of the above
6. Name of local body which allows experiments on small animals.
(A) IECC (B) IACE (C) IAEC (D) CPCSEA



7. The most common species used in animal research is :
(A) Cats (B) Dogs (C) Rabbits (D) Mice
8. The mouse is :
(A) Rodent species (B) Non-rodent species
(C) Miscellaneous (D) None of the above
9. Guideline used for 28 days repeated oral Toxicity studies in rodents :
(A) OECD 420 (B) OECD 408 (C) OECD 422 (D) OECD 407
10. The oldest quality control laboratory of the Drug Control Authorities in India is :
(A) Central Drugs Testing Laboratory, Kolkata
(B) Central Drugs Testing Laboratory (CDTL) Chennai, Tamil Nadu
(C) Central Drugs Testing Laboratory (CDTL) Hyderabad, AP
(D) Central Drugs Testing Laboratory (CDTL), Mumbai
11. Alcohol is known for its _____ effects.
(i) Carcinogenic
(ii) Neurotoxic
(iii) Teratogenic
(A) Both (i) and (ii) (B) only (i)
(C) only (ii) (D) All (i), (ii) and (iii)
12. What are the steps involved in evaluation of toxicity ?
(A) Chemical analysis
(B) Pathway analysis
(C) Hazard identification and dose-response evaluation
(D) Evaluation of long term impact
13. What is ecotoxicology ?
(A) Maintenance and breeding of laboratory animals
(B) Study of biostatistics
(C) Study of drugdevelopment
(D) Study of the effects of toxic chemicals on biological organisms.
14. Which of the following is NOT an initiating event in carcinogenesis ?
(A) DNA strand breakage (B) Mitogenesis
(C) Mutation of proto-oncogenes (D) Oxidative damage of DNA



15. Toxicokinetics is the study of the physiological processes associated with :
- (A) Movements of toxins in the body (B) Oxidative stress
(C) Metabolism (D) Cellular respiration
16. Which of the following assumptions is NOT correct regarding risk assessment for male reproductive effects in the absence of mechanistic data ?
- (A) An agent that produces an adverse reproductive effect in experimental animals is assumed to pose a potential reproductive hazard to humans
(B) In general, a non-threshold is assumed for the dose-response curve for male reproductive toxicity
(C) Effects of xenobiotics on male reproduction are assumed to be similar across species unless demonstrated otherwise
(D) Reproductive processes are similar across mammalian species
17. Which of the following statements is true ?
- (A) Chemical carcinogens in animals are always carcinogens in humans
(B) A chemical that is carcinogenic in humans is usually carcinogenic in at least one animal species
(C) From a regulating perspective carcinogens are considered to have a threshold dose-response curve
(D) Arsenic is an example of chemical that is carcinogenic to humans and nearly all species treated
18. The LD50 is best described as which of the following :
- (A) The dose at which 50% of all test animals die
(B) The dose at which 50% of the animals demonstrate a response to the chemical
(C) The dose at which all of the test animals die
(D) The dose at which at least one of the test animals dies
19. Which of the following are tools used in risk analysis ?
- (A) Toxicology (B) Epidemiology
(C) Clinical trials (D) All of the above
20. The LD50 is calculated from _____.
- (A) A quantal dose-response curve (B) a hormesis dose-response curve
(C) a graded dose-response curve (D) a log-log dose-response curve
21. A U-shaped graded toxicity dose-response curve is seen in humans with _____.
- (A) Pesticides (B) Sedatives (C) Opiates (D) Vitamins



22. The most rapid exposure to a chemical would occur through which of the following routes _____.
- (A) Oral (B) Subcutaneous (C) Inhalation (D) Intramuscular
23. The most common target of toxicity is the _____.
- (A) Heart (B) Lung
(C) CNS (brain and spinal cord) (D) Skin
24. Which of the following toxicity can occur due to single exposure ?
- (A) Acute toxicity (B) Sub-acute toxicity
(C) Sub-chronic toxicity (D) Chronic toxicity
25. A toxic substance produced by biological system is specially referred to as a _____.
- (A) Drug (B) Toxin (C) Xenobiotic (D) Poison
26. The fundamental statistical indicators are :
- (A) ANOVA (B) Mean (C) Variance (D) Median
27. Who developed Dunnett's test ?
- (A) Stephen Dunnett (B) Ronald Fisher
(C) Karl Pearson (D) Charles Dunnett
28. Which of the following tests are parametric tests ?
- (A) ANOVA (B) Kruskal-Wallis
(C) Chisquaretest (D) Wilcoxon
29. The median of a series of numerical values is :
- (A) A frequency table (B) A number
(C) Equal to the average (D) A graph of hart
30. The Mann Whitney U test is used :
- (A) To test whether two samples are likely to derive from the same population
(B) To determine the differences between different categorical variables in a population.
(C) To analyze the differences among the means of various groups
(D) To compare one group (usually the control treatment) with the other groups

