Graphic Era HILL UNIVERSITY
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University under section 2(f) of UGC Act, 1956

Sessional I (Even) Semester Examination March 2025

Roll no. 2182100

Name of the Course: B.Pharm
Semester: VIII
Name of the Paper: Experimental pharmacology
Paper Code: BP-810ET
Time: 1.5 hour **Maximum Marks: 30**

Note:
(i) This question paper contains three sections
(ii) All the sections are compulsory

SECTION-A

(Multiple Choice Questions) (10x1=10)

1	*Identify* the organization responsible for establishing guidelines for the maintenance and breeding of laboratory animals in India. A) OECD B) CPCSEA C) ICMR D) WHO	(CO1)
2	Complete the following statement: The primary purpose of the OECD guidelines for laboratory animals is to ensure _____. A) Cost-effective breeding B) Ethical treatment and standardization of animal experiments C) Increased reproduction rates D) Enhanced genetic modification	(CO1)
3	Fill in the blank: The process of euthanasia in laboratory animals should be performed using methods that _____. A) Cause minimal distress and pain B) Are cost-effective C) Allow for organ harvesting D) Are quick and irreversible	(CO1)
4	Select the correct statement regarding the breeding of laboratory animals: A) Breeding should be random to maintain genetic diversity. B) Breeding pairs should be selected based on genetic compatibility. C) Inbreeding is encouraged to maintain strain purity. D) Breeding is not necessary for laboratory studies.	(CO1)

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5	Which of the following is a primary consideration when selecting a method for blood collection in laboratory animals? A) Cost of equipment B) Volume of blood required C) Ease of administration D) Duration of the procedure	(CO1)
6	The primary purpose of using sham control groups in preclinical studies is to _____. A) Assess the effect of the experimental treatment B) Evaluate the impact of the experimental procedure without the active treatment C) Provide a baseline for comparison D) Ensure ethical treatment of animals	(CO2)
7	Select the correct statement regarding the selection of animal species for preclinical studies: A) The species should be chosen based on the availability of the animal B) The species should be chosen based on the cost of the animal C) The species should be chosen based on the similarity of the animal's physiology to humans D) The species should be chosen based on the ease of handling	(CO2)
8	In preclinical screening, the use of control groups is essential. Which of the following is a characteristic of a positive control group? A) Receives no treatment B) Receives a standard treatment known to produce a response C) Receives a placebo treatment D) Receives a treatment with an unknown effect	(CO2)
9	Which of the following is NOT a recommended practice when selecting animal species for preclinical studies? A) Consideration of the species' metabolic pathways B) Selection based on the species' natural habitat C) Assessment of the species' genetic similarity to humans D) Evaluation of the species' reproductive cycle	(CO2)
10	In preclinical studies, the purpose of using a negative control group is to: A) Assess the effect of the experimental treatment B) Evaluate the impact of the experimental procedure without the active treatment C) Provide a baseline for comparison D) Ensure ethical treatment of animals	(CO2)

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SECTION-B

Short Questions Attempt any TWO Questions (2x5=10)

1	Discuss the various methods of blood collection in laboratory.	CO1
2	Explain the different euthanasia methods used in laboratory animals.	CO1
3	Define preclinical screening models and explain their importance in the drug development process.	CO2

SECTION-C

Long Questions: Attempt any ONE Questions (1x10=10

1	Explain the role of the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA) in regulating animal research in India.	*CO1*
2	Discuss the in vivo screening models used to evaluate the diuretic and antipyretic activities.	*CO2*