BRAINWARE UNIVERSITY

Term End Examination 2024-2025
Programme – M.Pharm(Pharmaceutics)-2023
Course Name – Research Methodology and Biostatistics
Course Code - MPH301T
(Semester III)

Full Marks : 75   **Time : 3:0 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A
(Short Answer Type Questions)   5 x 5=25

1. Consider the following data on professors with the following observed and   (5)
expected frequencies:

	Professor 1	Professor 2	Professor 3
Observed	32	25	10
Expected	22.3	22.3	22.3

Calculate the value of the chi-square statistic.

2. The regression equation of Y on X is given as $Y = 2X + 5$. Evaluate the predicted   (5)
value of Y when X takes the value 5.

3. Explain the measures to be taken to ensure the psychological well-being of laboratory   (5)
animals.

4. Explain objectives of research in research methodology.   (5)

5. Explain control, resolution and enforcement in medical ethics.   (5)

OR

Explain guidelines of medical ethics.   (5)

Group-B

(Long Answer Type Questions)

10 x 5=50

6. Describe randomization. (10)

7. Explain the influence of precision, confidence intervals and standard error on sample size. (10)

8. Explain the concept of autonomy in medical ethics. (10)

9. Explain the environment guidelines as per CPCSEA. (10)

OR

Analyse the Declaration of Helsinki's approach to handling higher-risk research studies, (10)
including the mechanisms for protecting participants.

10. Explain Caging or housing system for animal husbandry as per CPCSEA guidelines. (10)

OR

Analyse the Declaration of Helsinki's provisions for addressing conflicts of interest in (10)
research, and discuss the measures that researchers and institutions must take to ensure
transparency and maintain research integrity.

****