Name: **Enrolment No:**	

UPES

End Semester Examination, May 2025

Course: Epidemiologic and Clinical Research Methods **Semester : VI**

Program: Int. B.Sc. MSc. Clinical Research **Duration : 3 Hours**

Course Code: HSCR3018 **Max. Marks: 100**

Instructions:: Read all the questions carefully. Attempt all sections.

S. No.	Section A (20Qx1.5M= 30 Marks)	Marks	COs
1.	Define clinical epidemiology.	1.5	CO1
2.	Enlist any 3 sources of bias.	1.5	CO1
3.	Name types of categorial types of measurement scale.	1.5	CO1
4.	Forest plot is also known as _____.	1.5	CO1
5.	Give 3 differences between primary and secondary data.	1.5	CO2
6.	Name risk measurement tools.	1.5	CO2
7.	Define bias.	1.5	CO2
8.	Write any 3 advantages of meta-analysis.	1.5	CO2
9	Give 3 differences between risk factors and causative factors.	1.5	CO3
10.	Write a importance of Data in Clinical Research.	1.5	CO3
11.	Statistical significance of dichotomous variables is high. **True/False**	1.5	CO3
12.	The most ideal calibration plot would show a 30° line. **True/False**	1.5	CO3
13.	Define propensity score.	1.5	CO4
14.	Enlist any 3 statistical measures for prediction model evaluation.	1.5	CO4

15.	Enlist 3 techniques for propensity score matching.	1.5	CO4
16.	Write the 2 types of prediction modelling.	1.5	CO4
17.	Linear regression is used when the dependent variable is binary or categorical. **True/False.**	1.5	CO5
18.	Write 3 phases of multiple imputation.	1.5	CO5
19.	Robert Koch's postulate is based on sufficient v/s necessary components. **True/False**	1.5	CO5
20.	Define exposure and outcome.	1.5	CO5
Section B (4Qx5M=20 Marks)			
1.	Write a note on the causal relationship between health and disease.	5	CO1
2.	Elaborate the Bradford Hill's criteria for causality.	5	CO2
3.	Write about any 2 strategies for controlling confounding in clinical research.	5	CO3
4.	Enlist measurement scales.	5	CO4
Section C (2Qx15M=30 Marks)			
1.	Discuss biomedical model of disease casuation.	15	CO2
2.	Construct a note on steps involved in meta-analysis with a case study.	15	CO5
Section D (2Qx10M=20 Marks)			
1	Give a thorough overview focusing on key features an example of cohort, case-control and cross-sectional study designs.	10	CO3
2.	Write a note on sources of bias and methods to overcome.	10	CO2