


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, May 2022			
Course: Advanced Epidemiologic and Clinical Research Methods Program: M.Sc. (Clinical Research) Course Code: HSCR7011		Semester: II Time : 03 hrs. Max. Marks: 100	
Instructions: Attempt all the questions			
Q.No	Section A Short answer questions/ MCQ/T&F	(20Q x1.5M= 30 Marks)	COs
Q	Attempt all the questions		CO
1.	Epidemiological concept include all except a) Distribution of disease b) Frequency of disease b) Pathology of disease d) Determinant of disease	1.5	CO1
2.	Which of the following terms is not associated with epidemiology a) Infection b) Injection c) Contamination d) Infestation	1.5	CO1
3.	Covid-19 is an example of a) Epidemic b) Endemic c) Pandemic d) Sporadic	1.5	CO1
4.	Which of the following is not an example of primary data a) Survey b) Questionnaire b) Interview d) Review article	1.5	CO3
5.	Rate ratio is calculated in a) Cohort study b) Case-control study b) Cross-sectional study d) Case-series study	1.5	CO3
6.	Hill's criteria include a) Temporality b) Coherence b) Consistency d) All of the above	1.5	CO1
7.	Causal inference does not deal about a) To identify causes of disease b) To decide the effective of treatment c) To maximize the biasness d) To remove the confounding	1.5	CO1

Q	Attempt all the questions		
1.	What do you mean by positive/negative and direct/indirect associations. Provide examples.	5	CO1
2.	Mention misclassification bias and ecological fallacy with examples.	5	CO2
3.	Define retrospective and prospective cohort study design with examples.	5	CO3
4.	Explain multivariate meta-analysis with an example	5	CO4
Section C		(2Qx15M=30 Marks)	
Q	Attempt all the questions (Case studies)		CO
1.	<p>Background:</p> <ul style="list-style-type: none"> • The prevalence of prostate cancer has increased in your country over the last 5 years. • You want to examine the association between calcium intake and prostate cancer risk. • You have limited time and funding to conduct this study. <p>Questions:</p> <ol style="list-style-type: none"> 1. What type of study would you conduct? 2. Why would you conduct that specific type of study? 3. What is the measure of association to calculate for this study? 	5+5+5=15	CO3
2.	<p>Background:</p> <ul style="list-style-type: none"> • Non-communicable disease such as type 2 diabetes are poorly understood and under-prioritized in many low-to-middle income countries. • You want to determine the risk of type 2 diabetes associated with cardiovascular risk factors such as obesity and abdominal fat mass in your country. <p>Questions:</p> <ol style="list-style-type: none"> 1. What type of study would you conduct? 2. Why would conduct that specific type of study? 3. What is the measure of association to calculate for this study? 	5+5+5=15	CO3
Section D		(2Qx10M=20 Marks)	
Q	Attempt all the questions		CO
1.	Elaborate the different types of sampling methods with examples.	10	CO3

2.	Explain the various steps involved in meta-analysis.	10	CO4
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