

Name:

Enrolment No:



UPES

End Semester Examination, December 2023

Course: Research Methodology and Research Ethics

Program: Integrated (B.Sc.) - (M.Sc.) Clinical Research

Integrated (B.Sc.) - (M.Sc.) Nutrition and Dietetics

Course Code: HSCC3017

Semester: V

Duration: 3 Hours

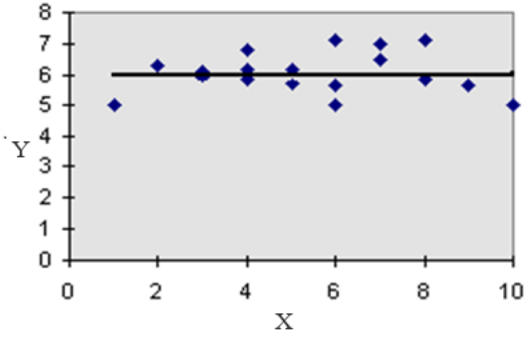
Max. Marks: 100

Instructions:

- 1. This question paper consists of four sections.**
- 2. All sections are compulsory.**
- 3. Attempt all questions.**

S. No.	Section A	Marks	COs
	Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)		
Q1	State any THREE essential characteristics of research.	1.5	CO1
Q2	List any THREE purposes of carrying out pure research.	1.5	CO1
Q3	Define exploratory research.	1.5	CO1
Q4	Discuss THREE purposes of carrying out descriptive research.	1.5	CO1
Q5	Define action research.	1.5	CO1
Q6	Peer review can best be summarized as_____ A. a process for evaluating quality of journal. B. a process by which independent scientists evaluate the technical merit of scientific research papers. C. a process by which a scientist's friends can give him or her advice. D. a method of typesetting in publishing.	1.5	CO1
Q7	One of the main purposes for including a "Materials and Methods" section in a paper is _____. A. to advertise scientific products.	1.5	CO1

	<p>B. to demonstrate that your methods are superior to other scientists' methods.</p> <p>C. to allow other scientists to reproduce your findings.</p> <p>D. for no reason, most journals do not require this section.</p>		
Q8	<p>The main purpose of a "References" section in a scientific paper_____.</p> <p>A. is to acknowledge your colleagues who gave you advice.</p> <p>B. is to present other papers that the reader might want to consult.</p> <p>C. is to provide a list of scientists who have repeated your research.</p> <p>D. is to acknowledge research and concepts upon which your work builds.</p>	1.5	CO1
Q9	<p>Often, one of the best places to start reading an article is_____.</p> <p>A. in the "Abstract" section.</p> <p>B. at a random spot in the middle of the article.</p> <p>C. in the "Materials and Methods" section.</p> <p>D. in the "References" section.</p>	1.5	CO1
Q10	<p>Which of the following is not considered plagiarism?</p> <p>A. Make use of the work of another and mispresent it as your own.</p> <p>B. Drawing content from the work of another without acknowledging the source.</p> <p>C. Paraphrasing too close to the original text.</p> <p>D. Drawing content from another work and adapting it with due acknowledgement.</p>	1.5	CO2
Q11	List any THREE graphical methods of studying relationships among variables.	1.5	CO3
Q12	List any THREE modeling methods of studying relationships among variables.	1.5	CO3
Q13	Define dependent and independent variables.	1.5	CO3
Q14	State any TWO applications of regression analysis.	1.5	CO3
Q15	Identify the type of relationship between the variables (X and Y) from the scatter plot given below.	1.5	CO3

													
Q16	List any THREE hypothesis testing methods.	1.5	CO3										
Q17	Define discrete and continuous variables.	1.5	CO3										
Q18	Explain in brief distribution function for continuous random variable.	1.5	CO3										
Q19	Define TWO types of hypotheses.	1.5	CO3										
Q20	Explain in brief Karl Pearson's coefficient of correlation.	1.5	CO3										
Section B (4Qx5M=20 Marks)													
Q1	Discuss any FIVE applications of action research.	5	CO1										
Q2	Describe any FIVE essential components of a research design.	5	CO1										
Q3	Distinguish between a hypothesis and a problem.	5	CO3										
Q4	Explain the least square regression properties in detail.	5	CO3										
Section C (2Qx15M=30 Marks)													
Q1	Illustrate various types of relationships between two variables using scatter plots.	15	CO3										
Q2	Discuss Baye's theorem and its applications in detail.	15	CO3										
Section D (2Qx10M=20 Marks)													
Q 1	<p>A set of observations of independent variable (X) and corresponding dependent variable (Y) are given below.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>X</td> <td>5</td> <td>2</td> <td>4</td> <td>3</td> </tr> <tr> <td>Y</td> <td>16</td> <td>10</td> <td>13</td> <td>12</td> </tr> </tbody> </table> <p>Based on the data, the coefficient of a linear regression model $Y=a + bX$ is estimated to be 6.1. Calculate the value of the coefficients a and b.</p>	X	5	2	4	3	Y	16	10	13	12	10	CO3
X	5	2	4	3									
Y	16	10	13	12									
Q2	Discuss the issue of plagiarism in academic and research publishing, the means of avoiding plagiarism and plagiarism detection tools.	10	CO2										