JHARKHAND Rai University
RANCHI

End Semester/Reappear (Semester VII) Examination December, 2024

Programme:BPT

Course:Research Methodology and Biostatistics **Full Marks: 70**

Course Code:23A704 **Time: 3 Hrs.**

Enrolment no. _____

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
	Section I			
1	**Short Answer type questions. Answer any four.**			**4 x 5 = 20**
a	Find the mode of 14, 25, 14, 28, 18, 17, 18, 14, 23, 22, 14, 18.	CO1	Apply	
	or			
	Explain the differences between Data Collection and Secondary Data Collection.	CO1	Understand	
b	Consider the marks obtained by 10 students in a mathematics test as given below: 55, 36, 95, 73, 60, 42, 25, 78, 75, 62, Calculate Range of the above Mentioned Data.	CO2	Analyze	
	or			
	The blood groups of 30 students of Class VIII are recorded as follows: A, B, O, O, AB, O, A, O, B, A, O, B, A, O, O, A, AB, O, A, A, O, O, AB, B, A, O, B, A, B, O. Represent this data in the form of a frequency distribution table.	CO2	Analyze	
c	Draw a Flowchart on Describing about Types of Research Design.	CO3	Remember	
	or			
	Write about Section of Research Methodology.	CO3	Remember	
d	What is Normal Distribution of Curve .Write down about its Characteristics.	CO4	Remember	
	or			
	Expain the importance of level of significance in hypothesis testing.	CO4	Understand	
	Section II			
Long Answer type questions.				**3 x 10 = 30**
2	Define Biostatistics and illustrate the flowchart about Types of Biostatistics.	CO2	Remember	
	or			
	In a cricket match, a batswoman hits a boundary 6 times out of 30 balls she plays. Find the probability that she did not hit a boundary.	CO2	Analyze	
3	"Research design in exploratory studies must be flexible but in descriptive studies, it must minimise bias and maximise reliability." Justify the statement.	CO3	Understand	
	or			
	Blood serum cholesterol levels of 10 subjects are as under: 240, 260, 290, 245, 255, 288, 272, 263, 277, 250. Calculate mean and Standard Deviation with the help of assumed mean.	CO3	Analyze	
4	Write about steps of Sample Design.	CO5	Remember	
	or			
	What are the sources for collection of vital statistics? Discuss their utility in practice of Community Medicine and Public Health Administration.	CO5	Understand	
	Section III			
	Application based questions			**1 x 20 = 20**
5	The following Frequency Distribution gives monthly consumption of electricity of 68 Consumer of a locality .Find the Mean, Median and Mode of the Data.	CO3	Analyze	
	or			
	In a mathematics test given to 15 students, the following marks (out of 100) are recorded: 41, 39, 48, 52, 46, 62, 54, 40, 96, 52, 98, 40, 42, 52, and 60 Find the mean, median and mode of this data.	CO3	Analyze	

Consumption	Consumers
65-85	4
85-105	5
105-125	13
125-145	20
145-165	14
165-185	8
185-205	4

COURSE OUTCOME

At the end of the course candidate will able to

CO1 Understand the importance of clinical research practice.

CO2 Develop the ability to apply the methods while working on a research project work

CO3 Describe the appropriate statistical methods required for a particular research design.

CO4 Choose the appropriate research design and develop appropriate research hypothesis for a research project.

CO5 Develop an appropriate framework for research studies.