

BACHELOR IN PROSTHETICS AND ORTHOTICS**THIRD YEAR****PAPER VI – RESEARCH METHODOLOGY / PROJECT DEVELOPMENT***Q.P. Code: 802436***Time: Three Hours****Maximum : 100 Marks****Answer All questions****I. Elaborate on:** **(3 x 10 = 30)**

1. What is hypothesis? Mention its types. How do you test the hypothesis?
2. Elaborate on procedures involved in limb orthotics project development.
3. Elaborate case study method and its uses.

II. Write notes on: **(8 x 5 = 40)**

1. What are the elements of Informed Consent?
2. Define reliability. What is Intra rater and Inter rater reliability?
3. What is the scope of statistics in limb Prosthetics research? Provide suitable examples.
4. Write Characteristics of normal distribution.
5. Define Validity. Write its types. Provide an example of a situation from clinical Orthotics where construct validity methods might be applied.
6. How is the Null Hypothesis stated? Explain with suitable examples from limb prosthetics.
7. What are the points to be considered while identifying and selecting a problem for research?
8. How do you compute mean for ungrouped data?

III. Short answers on: **(10 x 3 = 30)**

1. What do you understand by level of significance?
2. Explain Snowball sampling. Give an example.
3. Which diagram will help in calculating median and quartiles?
4. How will you interpret correlation coefficient?
5. How will you choose class interval?
6. How will you draw Frequency Curve?
7. What is Skewness? Define Kurtosis.
8. What is coefficient of Variation?
9. Define Bias. Mention various biases during a research work.
10. What are the contents of a research proposal?