

**BACHELOR IN PROSTHETICS AND ORTHOTICS**

**THIRD YEAR**

**PAPER IV – PROSTHETICS SCIENCE - III**

*Q.P. Code: 802434*

**Time: Three Hours**

**Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Prosthetic Management for Partial hand prosthesis.
2. Biomechanics of Trans Radial Prosthesis.
3. Explain about Functional Electrical Stimulation (FES).

**II. Write notes on:**

**(8 x 5 = 40)**

1. Trans Radial Prosthesis checkout procedure.
2. Explain about myoelectric prosthesis.
3. Explain about bio-feedback.
4. What is outside-locking hinges and inside –locking elbow units?
5. Explain about friction wrist units?
6. Explain about split socket prosthesis.
7. Write about Hosmer, Dorrance functional hands.
8. What is heavy duty Trans radial harness system?

**III. Short answers on:**

**(10 x 3 = 30)**

1. What is grasp pattern?
2. What is Muenster socket?
3. What is voluntary opening and closing?
4. What is Nudge control unit?
5. Define figure of 9 harness?
6. What is single axis hinge and polycentric hinge?
7. Types of prosthetic terminal device.
8. What is the Difference between internal and external elbow unit?
9. Measurement techniques for shoulder Disarticulation Prosthesis.
10. Definition of prehension.

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