

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0423]

APRIL 2023

Sub. Code: 2475

BACHELOR IN PROSTHETICS AND ORTHOTICS

THIRD YEAR (Regulation 2017-2018 onwards)

PAPER V – PROSTHETIC SCIENCE - III

Q.P. Code: 802475

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Explain about various types of Socket designs for Transradial amputee.
2. What are different sources of body input for Prosthetic controller? With the help of a diagram briefly explain the EMG signal processing in a Typical Myoelectric Control System.
3. Discuss about the Prosthetic management of Bilateral Shoulder Disarticulation Amputee with reference to Hybrid Prosthesis.

II. Write notes on:

(8 x 5 = 40)

1. Terminal Device.
2. Child Amputee Prosthetic Project.
3. Ergo Arm.
4. Alligator.
5. Greifer.
6. Smart Hand
7. Myoacoustic control Prosthesis.
8. Prosthetic Management of Bilateral Transradial Amputee.

III. Short answers on:

(10 x 3 = 30)

1. Internal Elbow unit.
2. Hinges for Elbow Disarticulation Prosthesis.
3. Control Cable System.
4. Michelangelo Hand.
5. Types of Hinges.
6. Load distribution in X- Frame socket.
7. Trans Humeral Prosthesis Socket Suspension.
8. Biomechanical challenges in fitting of Wrist Disarticulation Prosthesis.
9. Biosim.
10. Nudge control Prosthesis.
