

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

[AHS 0423]

APRIL 2023

Sub. Code: 2476

**BACHELOR IN PROSTHETICS AND ORTHOTICS**  
**THIRD YEAR (Regulation 2017-2018 onwards)**  
**PAPER VI – ORTHOTIC SCIENCE - III**  
*Q.P. Code: 802476*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe in detail the types of Hand Grasp and Prehension.
2. Describe briefly about Wrist Driven Flexor Hinge Splint.
3. Write down the different Orthotic Management of Claw Hand Deformity.

**II. Write notes on:**

**(8 x 5 = 40)**

1. General principles of Upper extremity splinting.
2. Indication, Functions and Bio-mechanics of Clavicular Orthosis.
3. What is Spring swivel thumb?
4. Flexion assist Metacarpophalangeal (MCP) dynamic splint.
5. How to make T – bar for a feeder?
6. Assistive device – button hook.
7. What is Wilmer Shoulder Orthosis?
8. Principle of Orthotic Management of Upper limb fracture.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Dynamic wrist hand Orthosis for Median Nerve injury.
2. Swan neck deformity and its Orthotic management.
3. Hypothenar bar.
4. Opponens bar.
5. Tennis elbow splint.
6. Functional Electrical Stimulation in Upper limb Orthosis.
7. Prop.
8. Thumb post.
9. Passive prehension Orthosis.
10. Thumb Spica.

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