

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

[AHS 0423]

**APRIL 2023**

**Sub. Code: 2458**

**BACHELOR IN PROSTHETICS AND ORTHOTICS**

**FIRST YEAR (Regulation 2017-2018 onwards)**

**PAPER VIII – ORTHOTICS SCIENCE I**

*Q. P. Code: 802458*

**Time: Three Hours**

**Answer All questions**

**Maximum : 100 Marks**

**I. Elaborate on :**

**(3X10=30)**

1. Explain in detail about Tracing, Measurement and Layout for Metallic Ankle Foot Orthosis.
2. Give a brief classification of various types of Foot Orthosis and describe those in details.
3. Explain the checkout procedure and prescription criteria of conventional Ankle Foot orthosis.

**II. Write Notes on :**

**(8X5=40)**

1. Orthotic management of Anaesthetic Foot.
2. Explain various fabricating materials used in lower extremity orthotics.
3. Explain Supra Malleolar Orthosis and its prescription criteria.
4. Explain functions, advantages and disadvantages of Internal and External shoe modification.
5. What are the types of limb length discrepancy and how you will measure it?
6. Explain functions and indications of Fracture Bracing.
7. Assist category Ankle joint.
8. Features of CTEV shoe.

**III. Short Answers on :**

**(10X3=30)**

1. Reverse Thomas heel.
2. Explain 3-point force system and how will it correct the ankle foot deformity.
3. Write Indications and contraindications of limited motion ankle joint.
4. Charcot foot.
5. Define Pes cavus and pes planus.
6. Define Orthosis, Orthotist and Orthotics as per ISO.
7. Draw neat sketch of Solid and Split stirrup.
8. MT Pad and MT bar.
9. Trimlines of UCBL shoe insert.
10. Medial T-Strap.

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