

**BACHELOR IN PROSTHETICS & ORTHOTICS
SECOND YEAR
PAPER VII – ORTHOTICS SCIENCE – II**

Q.P. Code: 802417

Time: Three hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on:

(3 x 10 = 30)

1. Explain about different types of orthotic knee joints.
2. Explain Floor Reaction Orthoses (FRO) design and its Biomechanical principles.
3. Discuss the orthotic management in congenital dislocation of hip.

II. Write notes on:

(8 x 5 = 40)

1. Differentiate conventional KAFO and thermoplastic KAFO. Explain the Biomechanics of thermoplastic KAFOs.
2. Explain the biomechanics of knee orthosis in correcting genu varum and valgum deformity.
3. Write the design indications and biomechanics of offset orthotic knee joint.
4. What is CDH? Explain about its management.
5. Lower limb weight relieving orthosis.
6. Toronto hip orthosis.
7. Write about two different types of orthotic hip joints.
8. Describe Craig-Scott KAFO.

III. Short answers on:

(10 x 3 = 30)

1. What is Spina bifida? What are its types?
2. What are the orthotic management principles in MMC?
3. Draw a diagram showing Coronal plane force system applied by KAFO, in the correction of Genu Varum.
4. Briefly explain a concept of Weight relieving orthosis.
5. Explain in brief Ischial bearing above knee orthosis.
6. Write the advantages of standing frames in spinal cord injury patient.
7. Explain about parapodium.
8. What do you understand by twister orthosis?
9. Draw a neat labeled diagram of Toronto orthosis used in LCPD.
10. What is paraplegia? Enumerate various orthosis given for this.