[LH 0815] **AUGUST 2015** **Sub. Code: 2417**

BACHELOR IN PROSTHETICS AND ORTHOTICS

SECOND YEAR

PAPER VI – ORTHOTICS SCIENCE - II

Q.P. Code: 802417

Time: Three Hours **Maximum: 100 Marks**

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Discuss the orthotic management in congenital dislocation of hip.
2. Describe on RGO. Write its indication, working principles and various types.
3. Describe in details on orthotic management in diplegic CP children.

II. Write notes on: **(8 x 5 = 40)**

1. Write a note on design, indication and mechanism of Knee orthosis with dial lock knee joint.
2. Write the design indications and biomechanics of offset axis orthotic knee joint.
3. Write the biomechanics of FRO in Cerebral palsy children.
4. Explain about trilateral hip abduction orthosis and its biomechanics.
5. Explain the biomechanics of knee orthosis in correcting genu varum and valgum deformity.
6. How will you differentiate a KAFO for PPRP patient and meningomyelocele (MMC) patient?
7. Write the orthotic management in CTEV.
8. Differentiate conventional KAFO and thermoplastic KAFO. Explain the biomechanics of thermoplastic KAFO.

III. Short answers on: **(10 x 3 = 30)**

1. Write a note on gait activated KAFO.
2. Write a note on weight relieving KAFO.
3. What is spinal cord injury and its types? Write the function of orthosis in spinal cord injury patient.
4. Write the role of knee orthosis in the osteoarthritis of knee joint.
5. What is limb length discrepancy, its types and how to measure it?
6. What is spina bifida and its type?
7. Explain Charcot restraint orthotic walker (CROW).
8. Explain about parapodium.
9. Write the advantages of standing frames in spinal cord injury patient.
10. Write a short note on
    a. Placement of pelvic band in HKAFO.
    b. Placement of hip joint in bilateral HKAFO.

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