

**M.D. DEGREE EXAMINATION**

**BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION**

**PAPER IV – PHYSICAL MEDICINE AND REHABILITATION – III**

**(RECENT ADVANCES IN REHABILITATION AND COMMUNITY  
BASED REHABILITATION)**

*Q.P. Code: 202074*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Clinical applications of functional electrical stimulation.
2. Discuss the biomechanical principles in the design and fabrication of orthotic devices for the upper limb. Describe various wrist hand orthosis. Write a note on the indications and various upper limb orthotic materials.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Suspension systems for lower extremity prosthesis.
2. Robotics in rehabilitation.
3. Assistive technology for communication disorders.
4. Biomechanical principles in the design of quadrilateral socket for above knee prosthesis.
5. Implantable devices for management of neurogenic bladder.
6. Electronic aids to daily living.
7. Advantages and disadvantages of myoelectric and body powered upper extremity prosthesis.
8. Assistive technology for patients with visual impairment.
9. Somatosensory evoked potentials.
10. Muscle imaging.

\*\*\*\*\*