

**DETAILED SYLLABUS FOR THE POST OF REHABILITATION TECHNICIAN
GRADE II (PROSTHETICS / ORTHOTICS / LEATHER WORKS) IN MEDICAL
EDUCATION SERVICE (Cat.No. : 484/2020)
REHABILITATION TECHNICIAN GRADE II (ORTHOTICS) MEDICAL EDUCATION
SERVICE (Cat.No. : 492/2021)**

(Total Marks – 100)

Module I

Basic Clinical Science - 25 Marks

A. Anatomy

- a. Introduction to anatomy, surface anatomy, muscular system {different types of muscles and attachment, nerve and blood supply, action (lower extremity) some for Upper Extremity trunk and Abdomen and spine),
- b. Skeletal system and
- c. Basic biomechanics

B. Physiology

- a. Introduction to physiology, circulatory system, cardiac system – heart and its function – blood pressure – pulse, control of heat.
- b. Respiratory system & structure of lungs – mechanism of respiration
- c. Urinary system, Mechanism of micturition
- d. Digestive system, Mechanism of Defecation
- e. Nervous system – Chief tracts – reflex action – Postural Reflex –Peripheral Nervous system.

C. Physical Medicine and Rehabilitation

- a. Introduction to Physical Medicine & Rehabilitation
- b. Basic knowledge of Physical therapy/Occupational Therapy
- c. Basic understanding of Human locomotion & Gait
- d. CBR Concept in Rehabilitation, Govt. Schemes for rehabilitation and concretion to handicapped.

D. Surgery/Orthopedics

- a. Introduction to Surgery & Orthopaedics, various levels of Amputation, both Upper Extremity &

Lower Extremity

- b. Examination of stump skin condition, sensation, contractures deformities, etc.
- c. Congenital and acquired deformities
- d. Disease of Nervous system – Poliomyelitis Obstetrical paralysis – spastic paralysis – Hemiplegia
 - Paraplegia – Pyogenic Infection – Leprosy –
- e. Chronic Arthritis – Neuropathic Arthritis – Metabolic Disease – Rickets – Avitaminosis
- f. Disorders: Paralysis pain and deformities of spine foot and Upper Extremity.

Module II

Workshop Practice, Machines, Tools and Material – 15 Marks

- a. Knowledge of operating and maintenance of different machines required in Limb Fitting

Centres, such as Sewing machines, Ortho-vac, Grinders, Drill Machines, etc.

- b. Hand tools like screw drivers, files, clamps, etc.
- c. Special purpose tools
- d. Material used in Orthotics & Prosthetics such as Plastics, wood, aluminum, iron, rubber, foam,
leather, etc.
- e. Workshop safety and first aid

Module III

General Knowledge

10 Marks

- A. Disability welfare
 - a. Know about disability, handicap and acts for persons with disabilities
- B. RCI Act
 - a. Rehabilitation Council of India Act
 - b. Central Rehabilitation Register
 - c. Practice as Rehabilitation Professional and Personal
 - d. Classifications and approved courses
- C. . WHO Standards on Prosthetics & Orthotics

- a. WHO standards of Prosthetics and Orthotics
 - b. Levels of Prosthetic Service
 - c. Implementation manual of WHO standards
- D. . Handling of Persons with disabilities
- a. Ethics of Rehabilitation Professionals and Personals
 - b. RPwD Act
 - c. National Trust Act

Module -IV

Orthotics

25 Marks

1. . Orthotics Lower

- a. Orthotics Lower Extremity, Deformities, disorders and pains in lower extremity.
- b. Nomenclature and knowledge of different type of orthosis their purpose of giving and check-up
- c. Measurement – Casting – impressions
- d. Selection of components, assembly, alignment, check-up of different type of orthosis

2. Orthotics Upper

- a. Orthotics Upper Extremity
- b. Deformities, disorders and pains in upper extremity.
- c. Nomenclature and knowledge of different type of orthosis their purpose of giving and check-up
- d. Measurement – Casting – impressions –
- e. Selection of components, assembly, alignment, check-up of different type of orthosis

3 Spinal Orthotics

- a. Spinal Orthotics
- b. Deformities, disorders and pains
- c. Nomenclature and knowledge of different type of orthosis their purpose of giving and check-up

- d. Measurement – Casting – impressions –
- e. Selection of components, assembly, alignment, check-up of different type of orthosis

Module V

Prosthetics 25 Marks

A. . Prosthetics Upper

- a. Measurement – Casting – impressions
- b. Nomenclature and knowledge of different type of prosthesis their purpose of giving and checkup
- c. Selection of components, assembly, alignment, check-up of different type of Prosthesis

B. . Prosthetics Lower

- a. Measurement – Casting – impressions –
- b. Nomenclature and knowledge of different type of prosthesis their purpose of giving and checkup
- c. Selection of components, assembly, alignment, check-up of different type of Prosthesis

C. Mobility Aids & Other Appliances

- a. Wheel Chairs & Tricycle: Types, design, strength and
- b. special purpose wheel chair/Tricycle

D. Dimensions.

- a. Crutches, Canes and Sticks: Measurements, Strength, types etc.
- b. Walkers/other mobility aids: Measurements types, design, strength

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper.