JHARKHAND Rai University
RANCHI

End Semester/Reappear (Semester VIII) Examination May 2025

Programme:BPT
Course: Prosthetics & Orthotics **Full Marks: 70**
Course Code:23A801 **Time: 3 Hrs.**
Enrolment no. _____

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
	Section I			
1	**Short Answer type questions.**			**4 x 5 = 20**
a	Discuss the clinical rationale behind the prescription of prosthetic and orthotic devices.	CO1	Remember	
	or			
	Explain the fundamental principles underlying the design and application of orthoses.	CO1	Understand	
b	Describe the design, function, and clinical indications of the Reverse Knuckle Bender splint.	CO3	Remember	
	or			
	How would you elucidate the mechanisms and principles underlying the suspension systems used in upper limb prostheses?	CO3	Remember	
c	What are the clinical indications, functional benefits, and potential limitations associated with the use of aeroplane splints in orthopedic and rehabilitative applications?	CO2	Remember	
	or			
	"Discuss the clinical indications, benefits, and limitations of using opponens splints in upper limb rehabilitation."	CO2	Remember	
d	Provide a detailed explanation of the various classification systems employed to categorize amputations.	CO3	Remember	
	or			
	Examine the potential complications associated with the use of lower extremity prosthetic devices.	CO3	Remember	
	Section II			
Long Answer type questions.				**3 x 10 = 30**
2	Analyze how the level of amputation affects gait mechanics, energy expenditure, and prosthetic fitting?	CO3	Analyze	
	or			
	Differentiate with explanation between Milwaukee brace and Boston Brace.	CO3	Analyze	
3	Explain about the different types of cervical and thoracic orthoses.	CO1	Remember	
	or			
	Categorize the different parts of the wheelchair? Describe the different measurements required for prescription of a wheelchair.	CO1	Apply	
4	Explain using examples about the characteristic differences between static and dynamic splints.	CO2	Understand	
	or			
	Write in detail about various splints that can be used for the support of intrinsic muscles of the hand.	CO2	Apply	
	Section III			
Application based questions.				**1 x 20 = 20**
5	How do the biomechanical demands specifically concerning energy expenditure and gait efficiency, differ between wheeled and non-wheeled walking aids when utilized by elderly individuals experiencing compromised balance?	CO3	Analyze	
	or			
	What are the key considerations and procedural steps involved in the comprehensive assessment and subsequent prescription of a prosthetic device for an adult who has undergone a knee amputation of the right lower limb?	CO3	Analyze	

COURSE OUTCOME

At the end of course, candidate will able to

CO1 Differentiate different types of Prosthetics & Orthotics and its fittings.

CO2 Apply Splint, Tape, and bandage as per the demand of device.

CO3 Assess and manage different prosthetics and orthotics device of upper limb, lower limb and spine