Model Question Paper -1 with effect from 2020-21(CBCS Scheme)

USN

Fifth Semester B.E. Degree Examination
Rehabilitation Engineering

TIME: 03 Hours   **Max. Marks: 100**

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

		Module – 1	
Q.1	**(a)**	What is Rehabilitation? Explain preventive rehabilitation specifying the levels of prevention.	**10**
	(b)	Describe Impairment, disability and handicap with necessary diagram. Give the relationship between each of them.	**10**
		OR	
Q.2	**(a)**	List out the goals of rehabilitation. Explain the role of Physiatrist and Occupational therapist in the rehabilitation team.	**10**
	(b)	Describe the role played by the following members in rehabilitation. i) Recreational therapist ii)Music therapist iii)Prosthetist-orthotist	**10**
		Module – 2	
Q.3	**(a)**	Describe coordination under following headings- i) Components of coordinated activity ii)Indications for coordination training iii)Principles of Coordination training	**10**
	(b)	Explain gait and gait cycle. Describe the determinants of gait.	**10**
		OR	
Q.4	**(a)**	What is Aphasia? Explain different types of Aphasia.	**10**
	(b)	Describe the methods adapted in speech therapy.	**10**
		Module – 3	
Q.5	**(a)**	Define Orthosis. Explain general principles and biomechanics of orthosis.	**10**
	(b)	Give the detailed classification of orthosis.	**10**
		OR	
Q.6	**(a)**	Describe Hip-knee-ankle-foot (HKAFO) with neat diagram.	**10**
	(b)	Explain different types of splints with neat diagram.	**10**
		Module – 4	
Q.7	**(a)**	Describe the levels of amputation in upper limb with neat diagram.	**10**
	(b)	Explain the classification of prostheses.	**10**
		OR	
Q.8	**(a)**	Describe below elbow prosthesis with neat diagram. Give their advantages and disadvantages.	**10**
	(b)	With neat diagram explain above knee prosthesis for transfemoral amputation.	**10**
		Module – 5	
Q.9	**(a)**	Explain different types of walking frames.	**10**
	(b)	Describe different types of crutches.	**10**
		OR	
Q.10	**(a)**	With neat diagram explain different parts of wheel chair.	**20**

Table showing the Bloom's Taxonomy Level, Course Outcome and Programme Outcome				
Question		**Bloom's Taxonomy Level attached**	**Course Outcome**	**Programme Outcome**
Q.1	(a)	L1,L2	CO1	PO1,PO12
	(b)	L1	CO1	PO1,PO12
Q.2	(a)	L1,L2	CO1	PO1, PO12
	(b)	L1	CO1	PO1, PO12
Q.3	(a)	L1	CO2	PO1, PO12
	(b)	L1,L2	CO2	PO1, PO12
Q.4	(a)	L2	CO2	PO1, PO12
	(b)	L1	CO2	PO1, PO12
Q.5	(a)	L1,L2	CO2	PO1, PO12
	(b)	L2	CO2	PO1, PO12
Q.6	(a)	L1	CO3	PO1, PO12
	(b)	L2	CO3	PO1, PO12
Q.7	(a)	L1	CO3	PO1, PO12
	(b)	L2	CO3	PO1, PO12
Q.8	(a)	L2	CO4	PO1, PO12
	(b)	L2	CO4	PO1, PO12
Q.9	(a)	L2	CO5	PO1, PO12
	(b)	L1	CO5	PO1, PO12
Q.10	(a)	L2	CO5	PO1, PO12

Bloom's Taxonomy Levels	**Lower order thinking skills**		
	Remembering(knowledge):L_1	Understanding Comprehension): L_2	Applying (Application): L_3
	Higher order thinking skills		
	Analyzing (Analysis): L_4	Valuating (Evaluation): L_5	Creating (Synthesis): L_6

Model Question Paper -2 with effect from 2020-21(CBCS Scheme)

USN

Fifth Semester B.E. Degree Examination
Rehabilitation Engineering

TIME: 03 Hours   **Max. Marks: 100**

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

		Module – 1	
Q.1	**(a)**	List out the goals of rehabilitation. Explain sociovocatioal rehabilitation.	**10**
	(b)	Describe the following terms: i)Disability evaluation ii)Functional diagnosis iii)Multiple disabilities	**10**
		OR	
Q.2	**(a)**	Explain the role of Physiatrist and physical therapist in the rehabilitation team.	**10**
	(b)	Explain the importance of following members in rehabilitation: i)Speech pathologist ii) Horticultural therapist iii)Dance therapist iv) Biomedical engineer	**10**
		Module – 2	
Q.3	**(a)**	Explain any **six** pathological gaits.	**10**
	(b)	Explain strengthening exercises with respect to General principles, Range of muscle work, Isotonic resistance equipment.	**10**
		OR	
Q.4	**(a)**	Explain Dysarthria and various types of it.	**10**
	(b)	Explain different types of visual aids with necessary diagrams.	**10**
		Module – 3	
Q.5	**(a)**	Give the classification of orthosis.	**10**
	(b)	Explain Foot orthosis with necessary diagram.	**10**
		OR	
Q.6	**(a)**	With neat diagram explain Functional Electrical Stimulation (FES) and criteria for selecting patients for it.	**10**
	(b)	Explain Mechanism, principle, and functions of spinal orthosis, hence explain cervical orthosis.	**10**
		Module – 4	
Q.7	**(a)**	Explain the general principles of amputation surgery including types of amputation and surgical procedures.	**10**
	(b)	Describe the levels of amputation in upper limb with neat diagram.	**10**
		OR	
Q.8	**(a)**	Give the classification of prostheses.	**10**
	(b)	Explain the components of below elbow prosthesis with voluntary opening Dorrance hook.	**10**
		Module – 5	
Q.9	**(a)**	Explain mobility aids and their functions, hence describe parallel bars.	**10**
	(b)	Explain different types of crutches with neat diagram.	**10**
		OR	
Q.10	**(a)**	With neat diagram explain different parts of wheel chair.	**20**

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