

Reg.No. _____



Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

End Semester Examination – Nov/Dec – 2016

Code : 15EI2023
Sub. Name : Sensory and motor rehabilitation

Semester : 2016-17 ODD
Duration : 3hrs
Max. marks : 100

ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.		Rehabilitation technology provides support to the disabled.		
	a.	Justify the statement with suitable illustration.	CO 3	10
	b.	Write notes on community based rehabilitation.	CO 1	10
(OR)				
2.	a.	Discuss the methods of assistive device design.	CO 2	10
	b.	Explain any one applications of assist devices.	CO 1	10
3.	a.	Explain the methods of integrating accelerometer and LDR in assist device.	CO 2	10
	b.	Explain the applications of using sensors in assist devices.	CO 2	10
(OR)				
4.	a.	Explain the functions of tread mill robot in rehabilitation training.	CO 1	10
	b.	List few applications of robots in lower limb rehabilitation.	CO 3	10
5.	a.	Explain the construction of the robot.	CO 1	8
	b.	Classify the robots based on its applications.	CO 3	4
	c.	How does robots useful in rehabilitation?	CO 3	8
(OR)				
6.	a.	List the advantages of prosthetic arm to disabled.	CO 3	5
	b.	Elaborate the working of prosthetic arm with myoelectric signals.	CO 1	15
7.	a.	Mention the advantages of assist devices to old aged subjects.	CO 3	10
	b.	Discuss few assistive devices that can be useful to old aged subjects at home.	CO 1	10
(OR)				
8.	a.	Design the smart assistive device for the following categories: a) disabled b) paralyzed subjects c) children	CO 2	15
	b.	List the activities carried out using the assist devices.	CO 1	5
<u>Compulsory:</u>				
9.	a.	Discuss the mobility devices used by disabled subjects.	CO 3	5
	b.	How does mobility devices be useful to disabled and elderly subjects.	CO 3	5
	c.	Identify a suitable methods of monitoring the elderly subjects from remote location.	CO 3	10

ALL THE BEST

- Choose the appropriate assist device suitable for specific disorder
- Develop new assist devices for the disabled.
- Apply the technology to design prosthetic devices