

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 : 14EI2017
Sub. Name : BIOMEDICAL INSTRUMENTATION

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.	a.	With neat sketch explain the physiology of human brain	CO1	10
	b.	Discuss about the peripheral nervous system.	CO1	10
(OR)				
2.	a.	Describe about the human respiration system with neat diagram.	CO1	10
	b.	Explain in detail about the following types of resistive transducer Strain gauge, Photodiode and Phototransistor.	CO1	10
3.	a.	Explain the various types of microelectrodes in detail used for biomedical applications.	CO1	10
	b.	Explain the measurement of Total Lung capacity.	CO2	10
(OR)				
4.	a.	Explain in detail about the EEG recording system and different lead systems used in EEG measurement.	CO2	15
	b.	Discuss in detail about ERG and its recording setup.	CO2	5
5.	a.	Explain the process defibrillators using neat diagram.	CO2	10
	b.	Describe about the Audiometers with neat diagram.	CO2	10
(OR)				
6.	a.	What is the difference between haemodialysis and peritoneal dialysis? Explain anyone with a suitable diagram.	CO3	10
	b.	Describe about anesthesia machine and mention their applications.	CO3	10
7.	a.	Describe in detail about working principle and operation of MRI with neat sketch.	CO3	10
	b.	List out the applications of CT.	CO3	10
(OR)				
8.	a.	Explain about Ultrasonography with its types.	CO3	10
	b.	Investigate the functional blocks of a technique used for separation of ions or molecules that are dissolved in a solvent .	CO3	10
<u>Compulsory:</u>				
9.	a.	Discuss in detail about Angiography technique with neat diagram.	CO3	20

ALL THE BEST