	Reg. No.			
MANIPAL INSTITUTE OF TECHNOLOGY MANIPAL A Constituent Institution of Manipal University III SEMESTER B.Tech. (BME) DEGREE END SEM. EXAMINATIONS, NOVEMBER 2017. SUBJECT: ANATOMY AND PHYSIOLOGY (BME 2105)				
Saturday, 25 th November 2017, 9 AM to 12 NOON TIME: 3 HOURS MAX. MARKS: 100				
Instructions to Candidates:				
1. Answer all questions from PART A and PART B. Use separate answer books for PART A				
and 2. Dra	I PART B. w labeled diagram wherever necessary			
PART-A ANATOMY (Max.Marks: 50)				
1)	Enumerate the cranial nerves with one function each.	5+5		
2)	Enumerate the parts of the Gastro Intestinal Tract. Add a note on the stomach.	3+7		
3)	Write a note on the following	5+5		
	(i) Cerebellum (ii) Right atrium			
4)	Describe the anatomy of the following.	5+5		
	(i) Urinary bladder (ii) Testis			
5)	Describe the anatomy of the following	5+5		
	(i) Thick skin (ii) Hyaline cartilage			

PART-B PHYSIOLOGY (Max. Marks: 50)

1a)	Draw a neat labelled diagram of monophasic action potential and mention their causes.	7
1b)	Write briefly on 'Sarcomere'.	3
2a)	What are the two types of nephrons give their differences.	3
2b)	Discuss counter current multiplier system in concentration of urine.	7
3 a)	What is the normal Heart Rate? What is increase called as? Give examples. How is heart rate regulated?	1+2+4
3 b)	Mention three properties of cardiac muscle. Mention any one.	3
4 a)	What are the forms in which O_2 is transported? Discuss O_2 Hb dissociation curve. What are the factors which shift the curve to right?	1+3+3
4 b)	Define hypoxia. Name 4 types of hypoxia.	3
5a)	Draw a diagram of cross section of the eye ball. Mention the receptors of vision and what are their differences.	7
5b)	Mention any three descending tracts of the spinal cord and which part of the spinal cord they are carried.	3