Printed Pages: EBM-802

(Following Paper ID and Roll No. 15 be filled in your Answer Books)											
PAPER ID:	Roll No.										

### B.TECH.

## Theory Examination (Semester-VIII) 2015-16

### TELEMEDICINE

Time: 3 Hours Max. Marks: 100

### **SECTION A**

### Q. Q.1 Attempt all parts. All parts carry equal marks. Write answer of each part in short.

 $(2 \times 10=20)$ 

- (a) What is basic difference between Telemetry and Telecommunication?
- (b) Define Frequency division multiplexing.
- (c) Define cardiology.
- (d) What do you mean by Tele-pathology.
- (e) What is the basic difference between voice and image transfer protocols.
- (f) Give the two examples of wireless Telemetry?
- (g) What is advantage of digital signals over analog signals.
- (h) What is the difference between router and hubs.
- (i) What do you mean by virtual reality.
- (j) What do you mean by clinical networks.

# NOTE

#### **SECTION B**

### Q2. Attempt any 5 questions from this section.

 $(10 \times 5=50)$ 

- a) Distinguish between a three line and two line electrical type transmitter. What type of variable does it transmit? Which one is more popular in industry and why?
- b) Why is frequency telemetry considered superior to voltage or current telemetry, even in short distance cases.
- c) Briefly explain about Neurology department under telemedicine.
- d) Describe Tele-Pathology and Tele-Surgery with relevant data.
- e) Explain various methods of Data compression and Transfer technology.
- f) Describe with relevant block diagrams Tele medical workstations.
- g) What do you mean by Web Technology. Explain briefly various types of networks.
- h) Write short notes on
  - i. Malpractice and liability
  - ii. Broadcasting

### **SECTION C**

### Note: Attempt any 2 questions from this section.

 $(15 \times 2=30)$ 

- Q:3. Draw the sketch of a pneumatic telemetering system. What types of data can be telemetered by a such a system? How is a fluid line characterized? What is the important parameter in such a system?
- system? How is a fluid line characterized? What is the important parameter in such a system Q:4 Describe various methods of Medical image scanning.
- Q:5 Write Short notes on
  - (a) Remote Sensing
  - (b) DSL Equipments
  - (c) Intellectual property rights.