Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 41030

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018

Seventh Semester

Electronics and Instrumentation Engineering

EI6704 – BIOMEDICAL INSTRUMENTATION

(Common to Electrical and Electronics Engineering/Instrumentation and Control Engineering)

(Regulations 2013)

Time : Three Hours | Maximum : 100 Marks

Answer ALL questions

PART – A (10×2=20 Marks)

1. Draw the structure of neuron.
2. State piezo electric effect.
3. Enumerate the types of heart sound.
4. What is heart rate ?
5. What are disposable electrodes ?
6. How EEG waves are classified ?
7. What is the need for thermograph ?
8. List the advantages of MRI.
9. Give few examples of prosthetic devices.
10. What is robotic surgery ?

PART – B (5×16=80 Marks)

11. a) Explain about the cardiovascular system.

(OR)

b) Explain about the respiratory system.

12. a) Explain any two measurement techniques for blood pressure.

(OR)

b) Explain about :

i) Blood gas analyzer. (8)

ii) Spiro meter. (8)

13. a) Explain the lead system and recording method of ECG.

(OR)

b) Discuss about the electrical safety procedures for biomedical equipments.

14. a) Explain the different types of biotelemetry system.

(OR)

b) Explain the working and need of ultrasonography.

15. a) Explain the working of heart lung machine.

(OR)

b) Explain the working of DC defibrillators.