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Roll No. ....

**AA-203**

**M. Tech. EXAMINATION, May 2018**

(First Semester)

(B. Scheme) (Re-appear Only)

(BME)

BME505

BIOMEDICAL INSTRUMENTATION

*Time : 3 Hours]*

*[Maximum Marks : 75*

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Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt any *Five* questions. All questions carry equal marks.

**1.** What is Man Instrumenation System ? Explain its components in detail.

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**P.T.O.**

2. What are the problems in measurement of living system ? Explain diagnosis of diseases and therapeutic application.
3. Explain various types of computer based instrumentation system. Explain instrumentation system of ENG and EMG in detail with functional circuit.
4. Write short notes on any *two* of the following :
  - (a) Hemodialysis machine
  - (b) Endoscopic diagnosis
  - (c) Testing by simulation techniques.
5. Give Introduction of Biotelemetry. Explain its components and application in detail.
6. Write short notes on any *two* of the following :
  - (a) Various methods of accident prevention
  - (b) Traction machine
  - (c) Medical use of radioisotops.
7. Explain generation of ionizing radiation in X-ray Machine. Explain radiation therapy in detail.
8. Write short notes on any *two* of the following :
  - (a) Spirometer
  - (b) Type of transducer
  - (c) Electrode theory.