

7. Describe the objectives of using patient monitoring system. List out the important parameters which are essential for patient monitoring. Also describe briefly about the different types of patient monitoring system. $2+2+6=10$
8. What are pre-amplifiers and isolation amplifiers in biomedical instrumentation system? $5+5=10$

M. Tech Odd Semester Examination, February, 2023

Electronics & Communication Engineering (3rd Semester)

Course No.: MECE-302B
(Biomedical Instrumentation)

Full Marks: 50

Pass Marks: 25

Time: 2 hours

- Note:**
1. Attempt any five questions.
 2. Begin each answer in a new page.
 3. Answer parts of a question at a place.
 4. Assume reasonable data wherever required.
 5. The figures in the right margin indicate full marks for the question.
 6. All the mathematical symbols and abbreviations have their usual meanings.

1. Describe the static and dynamic characteristics of a transducer? $7+3=10$
2. Explain the constraints of biomedical signal measurement system. 10
3. Write the differences between biotelemetry and telemedicine. 10
4. What are biomedical signals? Describe the sources of different biomedical signals. $2+8=10$
5. What is an intelligent medical instrument? Describe the role of a microprocessor/ microcontroller in providing intelligence to an instrumentation system. $3+7=10$
6. Define motion artefact and explain its origin. What is the common method for reducing motion artefact? $3+7=10$