Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

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|  |  |  |  |
| **Code :** | **14EI2017** | **Duration :** | **3hrs** |
| **Sub. Name :** | **BIOMEDICAL INSTRUMENTATION** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Explain with neat sketch anatomy and conducting system of heart. | CO1 | 20 |
| **(OR)** | | | | |
| 2. |  | Explain with neat sketch anatomy and physiology of central nervous system. | CO1 | 20 |
|  |  |  |  |  |
| 3. | a. | List the requirements of a good physiological transducer. | CO2 | 5 |
| b. | Explain the operation of any two types of physiological transducers with relevant sketches. | CO2 | 15 |
| **(OR)** | | | | |
| 4. |  | Analyse the various blood flow measurement techniques. | CO3 | 20 |
|  |  |  |  |  |
| 5. |  | Elaborate on the principle and working of spectrophotometers. | CO3 | 20 |
| **(OR)** | | | | |
| 6. | a. | Differentiate between hemo dialysis and peritoneal dialysis. | CO2 | 10 |
| b. | Write short notes on nerve stimulators. | CO2 | 10 |
|  |  |  |  |  |
| 7. | a. | Differentiate between internal and external pacemakers. | CO2 | 10 |
| b. | Explain one method of measuring blood pressure. | CO2 | 10 |
| **(OR)** | | | | |
| 8. | a. | Explain about Anesthesia machine. | CO2 | 10 |
| b. | State the importance of blood pH measurement with its technique. | CO2 | 10 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Summarize the concept of Angiography. | CO3 | 10 |
| b. | Discuss the instrumentation system of MRI scanner. | CO3 | 10 |