

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**DIPLOMA ENGINEERING - SEMESTER-V • EXAMINATION – SUMMER 2013**

**Subject Code: 350303****Date: 16-05-2013****Subject Name: CRICALCARE INSTRUMENTATION****Time: 10:30 am - 13:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

- Q.1** (a) Define intensive care unit. classify them and enlist the equipments utilized inside it. **07**  
 (b) Draw the bedside monitor block diagram and explain it. **07**
- Q.2** (a) Define bio-telemetry. Draw block diagram of ECG telemetry. **07**  
 (b) Describe defibrillator machine using diagram **07**
- OR
- (b) Explain the working principle of multipara monitor **07**
- Q.3** (a) Write short note on “Cardiac pacemaker” **07**  
 (b) Explain the NICU unit of the hospital with list of instruments and application. **07**
- OR
- Q.3** (a) Write short note on “Endocardial leads” **07**  
 (b) Explain the ICCU with list of instruments and application. **07**
- Q.4** (a) Draw and explain block diagram of ventilator. **07**  
 (b) Explain the principle of Nebulizer with application. **07**
- OR
- Q. 4** (a) State the types of pacemaker and explain any one in detail. **07**  
 (b) Describe suction apparatus. **07**
- Q.5** (a) Explain the working principle of “single channel telemetry” using block diagram. **07**  
 (b) Define Cardiac arrhythmias. Also explain the solution using DC defibrillator. **07**
- OR
- Q.5** (a) Write short note on “anesthesia apparatus” **07**  
 (b) Draw and explain Gas piping layout in hospital **07**

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