# **Instrumentation Specialisation**

#### **SEMESTER - 4**

| SUBJECTS                | Minor -1<br>Marks | Mid -<br>Exams | Minor - 2<br>Marks | End -<br>Exams |
|-------------------------|-------------------|----------------|--------------------|----------------|
| Process Instrumentation | 10                | 30             | 10                 | 50             |
| Transducer Technology   | 10                | 30             | 10                 | 50             |
| Microcontrollers        | 10                | 30             | 10                 | 50             |
| Elective - I            | 10                | 30             | 10                 | 50             |
| Elective - II           | 10                | 30             | 10                 | 50             |
| -                       | -                 | -              | -                  | -              |

## **Elective I and II (for Instrumentation Specialization)**

- 1. Industrial Instrumentation
- 2. Process Dynamics and Control
- 3. Signal Conditioning Circuits
- 4. Data Acquisition Systems
- 5. High Speed Data Converters
- 6. Pulse Circuits

### **SEMESTER - 5**

| SUBJECTS                   | Minor -1<br>Marks | Mid -<br>Exams | Minor - 2<br>Marks | End -<br>Exams |
|----------------------------|-------------------|----------------|--------------------|----------------|
| Analytical Instrumentation | 10                | 30             | 10                 | 50             |
| Nuclear Instrumentation    | 10                | 30             | 10                 | 50             |
| Elective - III             | 10                | 30             | 10                 | 50             |
| Elective - IV              | 10                | 30             | 10                 | 50             |
| Elective - V               | 10                | 30             | 10                 | 50             |
| Elective - VI              | 10                | 30             | 10                 | 50             |

## Electives III, IV, V and VI (for Instrumentation Specialization)

- 1. Electronic Instrumentation
- 2. Non-Destructive Testing
- 3. Controller Design using FPGA
- 4. Medical Instrumentation
- 5. Solar Energy Systems
- 6. Display Technologies
- 7. Telemetry and Tele-command
- 8. Image Processing
- 9. Control Systems
- 10. PC Based Instrumentation
- 11. Digital and Distributed Control Systems
- 12. Signal Processing