**B.N.M. Institute of Technology**

**An Autonomous Institution under VTU**

**Department of Information Science and Engineering**

**Microcontroller and Embedded System (22ISE142)**

**Question Bank for Module 4**

1. What are the operational and non-operational qualities attributes of an embedded systems.
2. Explain the fundamental issues in hardware software co-design.
3. With the functional block diagram, explain the operation of Washing Machine as Application-Specific Embedded system.
4. Explain unique characteristics of embedded systems.
5. What is sequential processing model? Draw a sequential processing model for car seat belt warning system using flow chart.
6. Explain Data flow graph and control data flow graph computational model with neat diagram.
7. Design an FSM model for Tea/Coffee vending machine.

**Question Bank for Module 5**

1. Explain the process of choosing an RTOS
2. Explain the working of target hardware debugging
3. Show the working of Emulators, Simulator and Debugging
4. With the help of neat diagram demonstrate the working of embedded system development environment.
5. Explain the concept of Binary Semaphore.
6. Explain the role of Integrated Development Environment (IDE) for Embedded Software development.