



## Seventh Semester B.E. Degree Examination, June/July 2025

### Real Time Systems

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

#### Module-1

1 a. Explain the clock based and event based tasks of real time systems. (10 Marks)  
 b. Explain DDC. List the advantages of DDC over analog control. (10 Marks)

**OR**

2 a. Analyze the working of different adoptive control with neat block diagram. (10 Marks)  
 b. Explain the sequence control using chemical reactor vessel as an example. (10 Marks)

#### Module-2

3 a. With a neat schematic diagram, explain the general purpose computer. (10 Marks)  
 b. Write the block diagram of parallel computers. Explain any two of them. (10 Marks)

**OR**

4 a. With a neat block diagrams, explain interrupt masking. (10 Marks)  
 b. Explain the different LAN technologies with help of neat sketches. (10 Marks)

#### Module-3

5 a. Explain the following terms:  
 i) Security  
 ii) Readability  
 iii) Flexibility  
 iv) Simplicity  
 v) Portability. (10 Marks)  
 b. Explain the modularity and variables in the real time systems. (10 Marks)

**OR**

6 a. Explain the control structures and exception handling in real time language. (10 Marks)  
 b. Explain the scope and visibility of a variable with example code. (10 Marks)

#### Module-4

7 a. Explain various tasks state with the help of state diagram. (10 Marks)  
 b. With neat diagrams, explain memory management. (10 Marks)

**OR**

8 a. With a neat diagram, explain multiuser and multi tasking operating system. (10 Marks)  
 b. What is code sharing? Explain the two methods of code sharing. (10 Marks)

#### Module-5

9 a. With a neat diagram, explain the planning phase and development phase. (10 Marks)  
 b. Describe the Ward and Millor's Methods with neat diagrams. (10 Marks)

**OR**

10 a. Explain single program approach with a neat flow chart. (10 Marks)  
 b. Explain the Yourdon Methodology and requirements definition for drying oven. (10 Marks)