## Model Question Paper ANURAG Engineering College (An Autonomous Institution) III B.Tech. II Semester Regular Examinations, June -2025 EMBEDDED SYSTEMS DESIGN (ECE)

Time: 3 Hours

Max.Marks:60

| Section – A (Short Answer type questions)                |  | (10 Marks)        |              |       |
|--|--|-------------------|--------------|-------|
| Answer All Questions                                     |  | Course<br>Outcome | B.T<br>Level | Marks |
| 1.   | Define Embedded Systems?                                   | CO1               | L1           | 1M    |
| 2.   | Write the Few applications of Embedded Systems?            | CO1               | L1           | 1M    |
| 3.   | What is an Interrupt?                                      | CO2               | L1           | 1M    |
| 4.   | Mention any Three Memory types?                            | CO2               | L1           | 1M    |
| 5.   | Write about I2C?   | CO3               | L1           | 1M    |
| 6.   | Define Serial communication?                               | CO3               | L1           | 1M    |
| 7.   | What are elements is C-Programming?                        | CO4               | L1           | 1M    |
| 8.   | Write Difference between Macros and Functions?             | CO4               | L1           | 1M    |
| 9.   | What is TASK?  | CO5               | L1           | 1M    |
| 10.  | What is mean by Queue?                                     | CO5               | L1           | 1M    |
| Section - B (Essay Questions)                            |  |                   |              |       |
| Answer all questions, each question carries equal marks. |  | (5  X10M = 50 M)  |              |       |
| 11.  | Explain Embedded Hardware units and devices in a system?   | CO1               | L3           | 10M   |
|  | OR   |                   |              |       |
| 12.  | Illustrate the Classifications of Embedded Systems?        | CO1               | L3           | 10M   |
| 13.  | Draw and explain the architecture of 8051 Microcontroller? | CO2               | L3           | 10M   |
| OR   |  |                   |              |       |
| 14.  | Write about the Memory maps and addresses?                 | CO2               | L3           | 10M   |
| 15.  | Explain about the Wireless devices?                        | CO3               | L3           | 10M   |
| OR   |  |                   |              |       |
| 16.  | Illustrate the parallel communication bus in ISA?          | CO3               | L3           | 10M   |
| 17.  | Discuss about the Macros and Functions?                    | CO4               | L3           | 10M   |
|  | OR   |                   |              |       |
| 18.  | Explain about the Processor directives?                    | CO4               | L3           | 10M   |
| 19.  | Explain about the Mailbox?                                 | CO5               | L3           | 10M   |
| OR   |  |                   |              |       |
| 20.  | Write about the Message Queue Functions?                   | CO5               | L3           | 10M   |