

ANURAG Engineering College
(An Autonomous Institution)
III B.Tech I Semester Regular Examinations, December – 2024
EMBEDDED SYSTEMS
(INFORMATION TECHNOLOGY)

Time: 3 Hours

Max. Marks: 60

Section – A (Short Answer type questions)**(10 Marks)****Answer All Questions**

	Course Outcome	B.T Level	Marks
1. Define the role of microcontroller in an Embedded System.	CO1	L1	1M
2. Classify Embedded Systems based on Performance and Functionality.	CO1	L2	1M
3. Write any two features of 8051 microcontroller.	CO2	L1	1M
4. Outline the RAM organization in 8051.	CO2	L2	1M
5. Compare Serial and Parallel Communication.	CO3	L2	1M
6. Mention the uses of Real Time Clock in embedded systems.	CO3	L1	1M
7. What are the advantages of assembly level language?	CO4	L1	1M
8. Illustrate an example of Macro.	CO4	L2	1M
9. List out the major tasks of OS.	CO5	L1	1M
10. Draw a state diagram of a task.	CO5	L2	1M

Section B (Essay Questions)**Answer all questions, each question carries equal marks.****(5 X 10M = 50M)**

11. A) Analyze in detail the classification of embedded system.	CO1	L3	10M
OR			
B) Identify the various purposes of embedded systems in detail with illustrative examples.	CO1	L3	10M
12. A) Draw and explain the block diagram of 8051 microcontroller.	CO2	L2	10M
OR			
B) Construct Memory map of 8051 microcontroller with neat diagram.	CO2	L3	10M
13. A) Write a detailed note on SPI protocol.	CO3	L2	10M
OR			
B) Elaborate the functionality of PCI bus.	CO3	L3	10M
14. A) Give the comparison between assembly and high level languages in detail.	CO4	L3	10M
OR			
B) What are processor directives? Explain with an example.	CO4	L2	10M
15. A) Illustrate the message passing technique for inter process communication in detail.	CO5	L3	10M
OR			
B) Examine the use of Mailboxes in Embedded Systems?	CO5	L3	10M

