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Bengaluru

Mid Term Examinations - October 2026

Date: 06/10/2026 **Time:** 11:45 AM - 01:15 PM

Course Code: ECE2530 **Course Name:** Embedded Systems using Micro Controllers

Semester: Third Semester **Max. Marks:** 50 **Weightage:** 50%

CO - Levels	CO1	CO2
Marks	50	40

PART A: Answer Following Questions. 10 M

Q.N.	Questions	M	CO	BT
1	What is an ADC used for in an embedded system?	2	CO1	BT1
2	Name any two on-chip peripherals commonly found in a microcontroller.	2	CO1	BT1
3	What is a Watchdog Timer (WDT)?	2	CO1	BT1
4	What is meant by a "real-time system"? A	2	CO1	BT1
5	What is the difference between a microprocessor and a microcontroller? A	2	CO1	BT1

PART B : Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
6	What is an ‘embedded system’? Briefly explain the components of embedded system hardware.	10	CO1	BT2
7	What is a ‘microcontroller’? List the additional circuits added to microcontrollers to perform special functions.	10	CO1	BT2

PART C: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
8	Classify Microcontrollers. Briefly Discuss Any Two with Features. (	10	CO1	BT2
9	Briefly explain 8051 registers	10	CO1	BT2

PART D: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
10	Explain the Architecture of the 8051 Microcontroller.	10	CO2	BT2
11	Explain the Various Addressing Modes of the 8051 with Examples.	10	CO2	BT2

PART E: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
12	Explain the Data Transfer Instructions of the 8051 with Examples.	10	CO2	BT2
13	Explain the Arithmetic Instructions of 8051 microcontroller with examples.	10	CO2	BT2