Code No.: EC601PC	R20	H.T.No.			8	R						

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III–B.TECH–II–Semester End Examinations (Supply) - June- 2025
EMBEDDED SYSTEM DESIGN
(ECE)

[Time: 3 Hours] **[Max. Marks: 70]**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A **(20 Marks)**

1.	a)	Define Embedded Systems.	[2M]
	b)	Illustrate the history of Embedded Systems.	[2M]
	c)	Explain about ASIC.	[2M]
	d)	What is the difference between SRAM and DRAM?	[2M]
	e)	What is the Function of Crystal oscillator circuit in embedded system?	[2M]
	f)	Discuss the purpose and functionality of real timer clock.	[2M]
	g)	Differentiate between RTOS and GPOS.	[2M]
	h)	What is Kernel?	[2M]
	i)	What is the importance of PIPE?	[2M]
	j)	Define Semaphore.	[2M]

PART-B **(50 Marks)**

2.	Explain in detail the characteristics of embedded system.	[10M]
	OR	
3.	Distinguish between Embedded systems and General Computing systems.	[10M]
4.	Discuss the different types of ROM memory with necessary diagrams.	[10M]
	OR	
5.	Explain the core of embedded systems with neat sketch.	[10M]
6.	Conclude how super loop based approach is useful for Small Scale embedded system?	[10M]
	OR	
7.	Prove high level language is flexible compared to machine level language with example.	[10M]
8.	Compare Process, Task and Thread.	[10M]
	OR	
9.	Explain about Multitasking and Multiprocessing.	[10M]
10.	Explain about Remote procedure call and sockets.	[10M]
	OR	
11.	Elaborate task synchronization techniques used in RTOS.	[10M]

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