

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
Diploma Engineering, Mid semester Examination

Semester: 5
Subject Code: (03608303)
Subject Name: (Embedded Systems)

Date: (08/08/2022)
Time: (1hr: 30min)
Total Marks: 40

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

Q.1	Answer any six out of Ten. (2 Marks Each)	(12)
	1 Define Embedded System.	
	2 Define: Micro processor	
	3 Define: Micro controller	
	4 Define: Operating System. Give example of operating system.	
	5 Give the Full form of PIC, AVR, ARM	
	6 When RTOS necessary and when it is not necessary in the Embedded system?	
	7 What are the main components of embedded system?	
	8 8. What are the requirements of embedded system?	
	9 9. Compare OS and RTOS.	
	10. Define Arduino & what are the three important part of Arduino?	
Q.2	A) Explain Characteristics of Embedded system.	(03)
	OR	
	A) Explain Characteristics of Real time operating system.	(03)
	B) Explain working of Washing machine.	(03)
	OR	
	B) Explain working of chocolate vending machine.	(03)
	C) Explain feature of PIC Controller	(04)
	OR	
	C) Explain Room Temperature Controller as an Embedded System.	(04)
	D) What are the advantage of Arduino & the IDE toolbar of Arduino?	(04)
Q.3	A) What is pointer access operation?	(03)
	OR	
	A) What is bitwise operation?	(03)
	B) What is compounded operation?	(03)
	OR	
	B) Explain the code with Boolean operation.	(03)
	C) Explain types of AVR micro controller.	(04)
	OR	
	C) Explain AVR Architecture.	(04)
	D) Draw Arduino functional block diagram.	(04)