

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

Semester: 5
Subject Code: (03608335)
Subject Name: (Control system and PLC)

Date: (10/08/2022)
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: Control System.	
	2. Define: Open loop System.	
	3. Define: Closed loop System.	
	4. Define: Feedback.	
	5. Define: Laplace Transform.	
	6. Define: Transform Function.	
	7. Write advantage of Open Loop Control system.	
	8. Write advantage of Closed Loop Control system.	
	9. Write advantage of Transfer Function.	
	10. Write Poles & Zeros of Laplace Transform.	
Q.2	A) Explain example of Open Loop Control system.	(03)
	OR	
	A) Explain example of Closed Loop Control system.	(03)
	B) Explain The Future Evolution of Control system.	(03)
	OR	
	B) Explain Benefits of Feedback system.	(03)
	C) Describe Open Loop Control system with Block Diagram.	(04)
	OR	
	C) Describe Closed Loop Control system with Block Diagram.	(04)
	D) Describe Reduction Technique Rule of any Four.	(04)
Q.3	A) Compare Open Loop & Closed Loop Control system.	(03)
	OR	
	A) Compare Block diagram method & Signal flow graph method.	(03)
	B) Properties of SFG.	(03)
	OR	
	B) Properties of Transfer Function.	(03)
	C) Describe Differential Equation Model.	(04)
	OR	
	C) Describe Transfer Function Model.	(04)
	D) Explain Advantage & Disadvantage of Transfer Function.	(04)