

SHRI RAMSWAROOP MEMORIAL UNIVERSITY

End Semester Examination (2021-22)-Odd Semester

M.Sc. (Physics) – II Year (III Sem)

Course Name: Advance Electronics

Code: MPH3101

Time: 02 Hours

Max Marks: 60

University Roll No.

(To be filled by the Student)

Note: Please read instructions carefully:

- a) The question paper has 03 sections and it is compulsory to attempt all sections.
- b) All questions of Section A are compulsory; questions in Section B and C contain choice.

Section A: Very Short Answer type Questions		BL	CLO	Marks
Attempt all the questions.				(10)
1.	What do you understand by the control system?	BL1	CLO1	02
2.	List the rules for drawing signal flow graph.	BL1	CLO2	02
3.	What do you understand by Bounded Input Bounded Output (BIBO)?	BL1	CLO3	02
4.	Describe the different types of clipper circuit.	BL2	CLO4	02
5.	What do you understand by steady-state?	BL1	CLO5	02
Section B: Short Answer Type Questions		BL	CLO	Marks
Attempt any 03 out of 05 questions.				(30)
1.	Explain the Routh-Hurwitz criterion.	BL2	CLO1	10
2.	Explain the Mason's gain formula.	BL2	CLO2	10
3.	What is operating principle of the Clamper circuit?	BL1	CLO3	10
4.	Explain working of Clipping circuit with proper circuit diagram	BL2	CLO4	10
5.	What do you understand by switch mode power supply?	BL1	CLO5	10
Section C: Long Answer Type Questions		BL	CLO	Marks
Attempt any 01 out of 04 questions.				(20)
1.	Differentiate between Open-loop and closed-loop Systems.	BL2	CLO1	20
2.	For the block diagram shown in figure 1 below. Solve and find the overall transfer function.	BL3	CLO2	20
<p style="text-align: center;">Figure 1</p>				
3.	Explain in detail the Regulated Power Supply with proper circuit diagram?	BL5	CLO3	20
4.	Explain in detail what is Silicon Controlled Rectifier (SCR)? Why SCR is called controlled rectifier?	BL5	CLO4	20