


Name:			
Enrolment No:			
<b>UNIVERSITY OF PETROLEUM AND ENERGY STUDIES</b> <b>End Semester Examination, December 2022</b>			
<b>Course: Metro system and engineering</b> <b>Program: B Tech Civil Engineering</b> <b>Course Code: CIVL 4027</b>		<b>Semester: VII</b> <b>Time : 03 hrs.</b> <b>Max. Marks: 100</b>	
<b>Instructions:</b>			
<b>SECTION A (5Qx4M=20Marks)</b>			
S. No.		Marks	CO
Q 1	Differentiate between MAGLEV and linear induction motor train.	4	CO1
Q 2	Discuss the demerits of developing metro systems.	4	CO2
Q 3	Explain the role of planning in metro.	4	CO3
Q 4	Discuss the need of air conditioning in metro.	4	CO4
Q 5	List the activities conducted in a commercial building.	4	CO1
<b>SECTION B (4Qx10M= 40 Marks)</b>			
Q 6	Describe the different models of public transport systems with their capacities.	10	CO1
Q 7	Explain the methods of quality assurance in a metro project during its construction stage.	10	CO2
Q 8	Describe the role of operating control center in metro system.	10	CO3
Q 9	Discuss the various types of collection of data for developing a public transport.	10	CO4
<b>SECTION-C (2Qx20M=40 Marks)</b>			
Q 10	Critically analyze the role of vehicle and structure dynamics in the development of metro system.	20	CO3
Q 11	Explain the role of safety control measures in proper functioning of metro. Also explain the positioning of lifts and escalators in metro station. (OR) Discuss the various soil investigations to be conducting before choosing proper tunneling method in metro project with their advantages and disadvantages.	20	CO4