School of Engineering

M.TECH Transportation Engineering
Semester End Examination - Jun 2024

Duration : 180 Minutes
Max Marks : 100

Sem II - G1PD202T - Urban Mass Transportation Planning Operations and Management

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Describe the different types of parking facilities commonly found in urban areas.	K1(2)
2)	Why is data validation crucial in travel demand forecasting?	K2(4)
3)	Discuss the differernt urban forms and transportation with diagrams.	K2(6)
4)	Explain the significance of integrating emerging technologies like real-time passenger information systems and contactless fare payment in urban transit operations.	K3(9)
5)	Describe the process of developing a fare structure for an urban mass transit system, considering equity and revenue generation.	K3(9)
6)	Examine the role of public-private partnerships (PPP) in improving bus transport services and infrastructure development.	K5(10)
7)	Evaluate the impact of parking policies such as pricing, time restrictions, and permit systems on parking utilization and traffic flow in urban areas.	K4(12)
8)	Evaluate the environmental impacts of bus transport and discuss measures to promote environmentally sustainable bus operations.	K5(15)
9)	Explain i) household survey, ii) Traffic surveys-mid block survey, iii)Roadside Interview (RSI) Survey	K5(15)
10)	Design a comprehensive multimodal transportation plan for a metropolitan area, integrating buses, light rail, bicycle lanes, and pedestrian pathways.	K6(18)