

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER- V EXAMINATION-SUMMER 2023****Subject Code: 3150611****Date: 03/07/2023****Subject Name: Transportation Engineering****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

Q.1	(a) Differentiate between Nagpur and Bombay Road development plan.	03
	(b) Write the importance of different modes in context to socio-economic development.	04
	(c) Write a short note on ICAO and CRRI.	07
Q.2	(a) Briefly explain classification of urban roads.	03
	(b) Differentiate between Flexible and Rigid Pavement.	04
	(c) Explain PIEV theory in detail.	07
OR		
	(c) Write in detail the reason of failure and suggestion for improvement of following distresses in pavement (i) Potholes, (ii) Eigator cracking.	07
Q.3	(a) Explain function and classification of modified bituminous binder.	03
	(b) Derive an expression for calculating the stopping sight distance on a roadway.	04
	(c) Write a shote note on Marshall Mix Design method.	07
OR		
Q.3	(a) Enlist different tests for bitumen and explain softening test briefly.	03
	(b) Write a short note on Coning of wheel in railway engineering.	04
	(c) Derive an equation to calculate super elevation on horizontal circular curve.	07
Q.4	(a) Draw the diagram of the “Points & Crossing” showing all components of it in detail.	03
	(b) Describe Construction procedure of Granular Base Course-WBM	04
	(c) Briefly explain the various types of joints used in the construction of cement concrete pavement.	07
OR		
Q.4	(a) Write a note on Junction and Terminal.	03
	(b) Enlist types of parking. Explain various methods of on street parking.	04
	(c) State the concept of PCU value and the factors affecting PCU values.	07
Q.5	(a) What is the importance of wind rose diagram in runway orientation?	03
	(b) Enlist different types of traffic surveys. What is the significance of Delay studies?	04
	(c) What are the different points to be taken care while selecting the site for airport?	07
OR		
Q.5	(a) Enlist the different components of Airport. Explain the importance of Taxiway.	03
	(b) Write a short note on marking and lighting on runway.	04
	(c) Explain Points & Crossing with neat sketch.	07
