GUJARAT TECHNOLOGICAL UNIVERSITY ME SEMESTER II EXAMINATION – SUMMER 2017

Subject Code: 2721307Date: 25/05/2017Subject Name: Economic Evaluation of Transportation ProjectsTime:02:30 PM to 05:00 PMTotal Marks: 70

Instructions:

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks

Q.1	(a) (b)	Explain Demand and Utility Concept. Briefly describe Ordinal analysis and Elasticity of supply.	07 07
Q.2	(a) (b)	Write difference between GNP and GDP. How they are calculated? Define National Income and explain any one method of estimating the National Income.	07 07
		OR	
	(b)	Describe in brief Total Transportation Cost components.	07
Q.3	(a) (b)	What are the stages involved in Economic evaluation of project? Differentiate between: (I) Economic Evaluation and Economic Formulation of Engineering projects and (II) Economic Analysis and Financial Analysis.	07 07
Q.3	(a)	OR Write a short note on "Sensitivity Analysis".	07
	(b)	Explain with sketches factors affecting RUC and their evaluation.	07
0.4	(a)	Discuss role of taxes and tolls in financing transportation projects.	07

(a) Discuss role of taxes and tolls in financing transportation projects.
(b) It is proposed to widen a stretch of single lane into double lane road length is 40km the cost per km is 6.5 lacs rate of interest is 10%. The annual cost of Maintenance of existing is Rs7000/km and after doubling Rs.9000/km the average vehicle operation cost is Rs1.35 per vehicle/km and after improvement 1.12Rs per vehicle km at present 2000 motor vehicles/day and at end of 15 years likely to be doubled. Determine whether the proposed improvement is economically viable or not?

OR

Q.4	(a)	Write short note on appraisal model: HDM-IV.	07
	(b)	Explain in brief Transportation System evaluation.	07
Q.5	(a)	Differentiate between public and private finance.	07
	(b)	What are the sources of finance for any infrastructure project?	07
		OR	
Q.5	(a)	Discuss national policy in context of fares and subsidy which are directly	07
		affecting transportation projects.	
			~ -

(b) Write a short note on any case study of analysis and evaluation of transportation 07 projects.
