Seat No.: _____ Enrolment No.______

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. Sem. – IInd - Examination – June/July- 2011

Subject code: 1721307

Subject Name: Economics and Evaluation of Transportation Projects

Date:29/06/2011 **Time: 10:30 am – 01:00 pm**

Total Marks: 70

Instructions:

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

Q.1	**(a)**	Discuss about stages involved in economic evaluation of transportation projects.	**07**
	(b)	Explain following in brief :	
		1) utility	**04**
		2) Ordinal analysis.	**03**
Q.2	**(a)**	Explain in brief in the field of transportation:	
		I. Laws of demand	**03**
		II. Elasticity of supply	**04**
	(b)	Discuss about various methods of economic evaluation with their peculiarities and limitations.	**07**
		OR	
	(b)	What are the factors on which NI depends? Also, Describe approaches to measure NI.	**07**
Q.3	**(a)**	1) What is BOOT?	**04**
		2) What is project appraisal?	**03**
	(b)	Enlist sources of revenue. Explain methods of highway financing.	**07**
		OR	
Q.3	**(a)**	1) Financial cost	**03**
		2) Principles of road pricing	**04**
	(b)	I. Consumer surplus	**03**
		II. Break even analysis	**04**
Q.4	**(a)**	What are the components of VOC? Also write factors affecting VOC.	**07**
	(b)	I. What is GDP and GNP	**04**
		II. Pay to willingness and toll tax	**03**
		OR	
Q.4	**(a)**	In highway economic analysis, how transportation cost is derived? Also, state benefits from highway project.	**07**
	(b)	Enlist various types of transportation project. Also, state various softwares available for economic evaluation of transportation projects.	**07**
Q.5	**(a)**	I. Maintenance and labour cost for vehicles	**03**
		II. Traffic system evaluation	**04**

(b) I. Concept of time value of money **03**

II. Calculate the annual cost of a highway stretch from following data at the rate of interest 9% **04**

Item	Cost (rs.lacs)	Life (year)
Land	25	100
Earth work	17	40
Bridge, culvert	10	50
Pavement	30	15

Maintenance cost of road is 2 lacs per year.

OR

Q.5 **(a)** 1) Factors affecting tyre life of vehicles. **03**

2) Requirements of good road pricing system **04**

(b) What is EIRR? Discuss about basic principles of economic evaluation. **07**

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