

M.E. Second Semester (Civil Engineering (Transpo. Engg. & Manag.)) (New CGS)
13116 : Elective-III : 1) Transportation Economics & Evaluation : 2 SFTR 5

P. Pages : 1

Time : Three Hours



AW - 3781

Max. Marks : 80

- Notes :
1. All question carry equal marks.
 2. Answer **any five** questions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answer necessary with the help of neat sketches

1. a) Explain briefly identification and measurement of highway benefits. 8
b) Explain concepts and principles of Engineering economics. 8
2. a) Explain the terms 8
- Capital Cost
- Inflation cost
b) Explain the terms 8
- Maintenance cost
- Road user cost
3. a) Illustrate the basic 8
Characteristics of NPV method.
b) A single Lane road 50 km long is to be widened to two lanes at a cost of Rs 8 lacs per km, including all improvements. The cost of operation of vehicles on the single lane road is Rs. 1.30 per vehicle km, whereas it is Rs. 1.15 per vehicle km on the improved facility. The average traffic may be assumed 2500 vehicles per day over a design period of 20 years. The interest rate is 10 percent per annum. The cost of maintenance is Rs. 5000 per km on the existing road and Rs. 10000 per km on the improved road. Is the investment in the improvement scheme is worthwhile. 8
4. a) Explain the ranking of independent projects. 8
b) What are the characteristics and limitations of BCR method. 8
5. a) Explain the terms Depreciation & Taxes. 8
b) Explain:- Salvage value estimation. 8
6. a) Explain with neat sketch - Relationship between material cost, private cost and demand. 8
b) Explain sensitivity of travel demand. 8
