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BICEE-016

B.Tech. CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

00892

December, 2017

BICEE-016 : TRANSPORTATION PLANNING

Time : 3 hours *Maximum Marks : 70*

Note : *Attempt any **five** questions. All questions carry equal marks. Assume suitable data wherever necessary. Use of scientific calculator is allowed.*

1. (a) Explain the transportation planning morphology in detail. 7

(b) Define the following terms : 7

(i) Problem Definition

(ii) Goals and Objectives

(iii) Constraints

(iv) Inventory

(v) Expansion Factors

(vi) Master Plan Preparation

(vii) Diversion Curves

2. (a) Describe the methods of collecting travel pattern data. 7

(b) Explain the use of screen lines and cordon lines in data collection with suitable example. 7

3. (a) Using Furness method, calculate and tabulate interzonal trips : 7

O/D	1	2	3	4	Total Present Trips	Predicted Future Trips
1	8	3	16	15	42	147
2	6	9	8	5	28	42
3	10	8	3	8	29	32
4	2	4	7	12	25	30
Total Present	26	24	34	40	124	—

(b) What are the factors affecting trip generation and attraction rates ? Discuss briefly. 7

4. (a) Explain the use of Lowry derivative models as a land use transportation model. 7

(b) Give an account of the non-transport solutions for transport problems, with suitable example. 7

5. (a) Write short notes on the following : 7

(i) Zoning

(ii) Secondary Sources of Data Collection

(b) Discuss the advantages and disadvantages of probabilistic models. 7

6. (a) Discuss about the role of transportation in society. Mention its limitations. 7

(b) Discuss in brief about the travel demand forecasting evaluation stages. 7

7. (a) Discuss in detail the different types of mode split models. 7

(b) Describe quick response technique, with suitable example. 7