

B.Tech. CIVIL ENGINEERING (BTCLEVI)
Term-End Examination
December, 2015

BICEE-018 : PAVEMENT EVALUATION

Time : 3 hours

Maximum Marks : 70

Note : Answer any seven questions. All questions carry equal marks. Use of scientific calculator is allowed.

1. Explain the different types of pavement failures, their causes and appropriate remedial measures. 10
2. Discuss the causes, measurement and remedial measures of pavement slipperiness and unevenness. 10
3. How are the pavement surface conditions evaluated ? Discuss the applications of these evaluation methods in detail. 10
4. Discuss the effects of pavement layers and temperature on structural stability and pavement deterioration. 10

5. Write short notes on any **two** of the following : 2×5=10
- (a) Functional requirements of flexible and rigid pavements
 - (b) Ruts and Potholes
 - (c) Pavement slipperiness
6. Explain the applications of Plate Load Test and Wave Propagation Test for pavement evaluation, with their merits and demerits. 10
7. Discuss the structural and functional requirements of pavements. 10
8. Differentiate between the following :
- (a) Flexible and Rigid pavements 5
 - (b) Flexible and Rigid overlays 5
9. Discuss, in detail, the application of Geosynthetics in pavement overlays. 10
10. Write short notes on any **two** of the following : 2×5=10
- (a) Specimen Testing
 - (b) Benkelman Beam Rebound Deflection Test
 - (c) Pavement Distress
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