

**B.Tech. CIVIL ENGINEERING (BTCLEVI)**

**Term-End Examination**

**June, 2015**

00671

**BICEE-018 : PAVEMENT EVALUATION**

*Time : 3 hours*

*Maximum Marks : 70*

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

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1. Discuss, in detail, the various functional and structural requirements of flexible and rigid pavements. 10
  
2. What do you understand by Ruts, Pot-holes and Cracks ? Discuss the factors affecting them and the measures adopted to counteract these surface conditions. 10
  
3. How will you measure the Skid Resistance and Unevenness of pavement surfaces ? Discuss in detail. 10
  
4. Discuss the effects of subgrade soil and moisture on structural stability and pavement deterioration. 10

5. Write short notes on any *two* of the following : 2×5=10
- (a) Pavement failure
  - (b) Pavement slipperiness
  - (c) Pavement surface condition evaluation by Riding comfort
6. Explain the application of FWD and Benkelman Beam Rebound Deflection tests for pavement evaluation. 10
7. Discuss the evaluation of pavements by Destructive Test Methods, in detail. 10
8. Discuss the design of flexible overlays over flexible pavements by Benkelman Beam Deflection method. 10
9. What are pavement overlays ? What are the differences between flexible and rigid overlays ? 10
10. Write short notes on any *two* of the following : 2×5=10
- (a) Geosynthetics in pavement overlays
  - (b) Wave Propagation Test
  - (c) Effects of traffic on structural stability and pavement deterioration
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