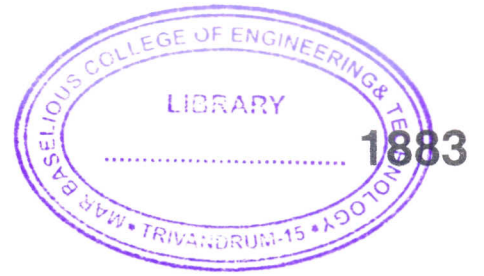




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Reg. No. :

Name :

**Eighth Semester B.Tech. Degree Examination, May 2013
(2008 Scheme)**

08.806.3 Elective – IV : DESIGN AND CONSTRUCTION OF PAVEMENTS (C)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions.

1. Explain the functions of various layers of flexible pavement.
2. Explain (i) subgrade modulus (ii) ESWL.
3. Briefly explain Burmister's Layer Theory.
4. Explain effect of temperature stress on concrete pavements.
5. Enumerate requirements and necessity of joints in concrete pavements.
6. Explain bituminous concrete and premix carpet.
7. What are the principles of surface drainage in pavements ?
8. What are the components of pavement management system ? **(8×5=40 Marks)**

PART – B

Answer **any one** question from **each** Module (any missing data can be suitably assumed).

Module – I

1. What are the factors to be considered in design of pavements ? **10**
2. Explain CBR method of design of flexible pavements. **10**

OR

3. Discuss AASHTO method of flexible pavement design with respect to design variables and equations. **20**

P.T.O.

**Module – II**

4. Determine spacing between contraction joints for a 3.5 m slab width having thickness 20 cm and $f = 1.5$ for
- i) plain cement concrete of allowable stress = 0.8 kg/cm^2 .
 - ii) reinforced cement concrete 1 cm diameter bars at 0.3 m spacing. 20

OR

5. Explain the various design considerations of cement concrete pavement sections using Westergaards approach. 20

Module – III

6. Briefly explain construction procedures of Bituminous Concrete and Bituminous Macadam construction. 20

OR

7. Explain the concept of pavement evaluation and what are the methods of evaluation. 20
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