Roll No. | | | | | | | | | | | | **Total No. of Pages : 01**

Total No. of Questions : 08

M.Tech. (Soil Mechanics & Foundation Engineering) (Sem.–2)

DESIGN OF ROAD PAVEMENTS

Subject Code : CESE-14

M.Code : 37204

Date of Examination : 13-12-22

Time : 3 Hrs. **Max. Marks : 100**

INSTRUCTIONS TO CANDIDATES :

1. **Attempt any FIVE questions in all.**
2. **Each question carries TWENTY marks.**

1. What are desirable properties of subgrade soil? Give details about the identification and classification tests of these properties.

2. Differentiate between Mechanical stabilization and stabilization with admixtures. List equipments used for mechanical stabilization. List the chemicals used for chemical stabilization.

3. Discuss in detail the following factors with reference to pavement design:

   Traffic factor, Soil factor, Climate factor and stress distribution factor.

4. Discuss the methods for design of thickness with reference to rigid pavements. Explain advantages and disadvantages of each.

5. Discuss in detail about 'changes in moisture and volumetric change in subgrade and base course ' in context of rigid pavements.

6. What is the need & significance of evaluation of pavements? Describe the various methods for carrying out functional and structural evaluation of pavements.

7. Discuss in detail ‘AASHO road test’.

8. Write notes on : (i) Dowel bars: Purpose, design and checks

   (ii) Road mechanic and applications.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.