

M.E. Second Semester (Civil Engineering (Geotechnical Engineering)) (Full Time) (C.G.S.- New)
13057 : Elective-II : Pavement Analysis and Design : 2 SFGE 5

P. Pages : 1

Time : Three Hours



AW - 3926

Max. Marks : 80

- Notes :
1. All question carry equal marks.
 2. Assume suitable data wherever necessary.
 3. Illustrate your answer necessary with the help of neat sketches.
 4. Solve **any five** question out of six.

1. a) Explain the design factors affecting highway and airfield pavement. 8
b) What is 'ESWL'? Explain in brief it's computation procedure and factors affecting it. 8
2. a) Explain with neat sketch, the field method to determine modulus of subgrade reaction 'K'. It's correction required and its importance. 8
b) Explain in details Marshal's method of bituminous mix design and test method. Draw a neat sketch. 8
3. a) Explain in detail the various method of determining stresses and strains in flexible pavements. 8
b) Explain in detail along with diagram and different types of joint provided in concrete pavements. 8
4. a) Enlist various design methods of flexible airfield pavement and explain any one in detail. 8
b) Explain in brief with neat sketches 'North Dakota Contest'. 8
5. a) Explain in brief FAA method of design of airport flexible pavement. 8
b) Explain LCN system of rigid airfield pavement design. 8
6. a) Why field pavement testing is necessary? Describe various field test to measure the strength of pavement. 8
b) Describe the Benkelman beam along with diagram and also the procedure to obtain the deflection of pavement. 8
