AMTS16 PAVEMENT ANALYSIS AND DESIGN

UNIT-1 FUNDAMENTALS OF PAVEMENT DESIGN

Requirements of an ideal pavement, elements of pavement structure and their function. Type of pavements, comparison of flexible and rigid pavements, comparison of highway and airport pavements, factors affecting pavement design

UNIT-2 ANALYSIS AND DESIGN OF FLEXIBLE PAVEMENTS

Stress distribution phenomenon, CBR, IRC design guidelines

UNIT-3 ANALYSIS AND DESIGN OF RIGID PAVEMENTS

IRC design methods, Westergaad's analysis, wheel load stresses, temperature stresses and their evaluation, design of joints

UNIT-4 REHABILITATION AND MAINTENANCE OF PAVEMENTS

Causes of failures of flexible pavements and remedial measures, causes of failures of rigid pavements and remedial measures, maintenance of pavements

UNIT-5 PAVEMENT EVALUATION AND OVERLAY DESIGN

Introduction, method of pavement evaluation, design principles of overlay, IRC design guidelines

Reference Books:

1. L.R. Kadyali & N.B Lal ,Principles and practices of Highway Engineering 2006
2. Sharma S.K, Principles and Practices of Highway Engineering 2012