



RCETCEAC04 - Railways,Bridge and Tunnel

Course outcomes:

- After undergoing the subject, students will be able to
- State various factors causing deterioration to buildings
- Investigate/diagnose various defects in buildings

Syllabus:

UNIT I

Need for Maintenance

Importance and significance of repair and maintenance of buildings, Meaning of maintenance, Objectives of maintenance, Factors influencing the repair and maintenance

UNIT II

Agencies Causing Deterioration (Sources, Causes, Effects)

Definition of deterioration/decay, Factors causing deterioration, their classification, Effects of various agencies of deterioration on various building materials i.e. bricks, timber, concrete, paints, metals, plastics, stones,

UNIT III

Investigation and Diagnosis of Defects

Systematic approach/procedure of investigation, Sequence of detailed steps for diagnosis of building defects/problems, List non-destructive and others tests on structural elements and materials to evaluate the condition of the building and study of three most commonly used tests

Reference Text Books:

1. Satish Chandra and M.M. Agrawal, Railway Engineering, Oxford University Press, New Delhi
2. S.C.Saxena And S.P. Arora, A Text Book of Railway Engineering, Dhanpat Rai Sons, New Delhi
3. S.P.Bindra,Principles and Practice of Bridge Engineering, Dhanpat Rai & Sons, New Delhi
4. S.C. Saxena, Tunnel Engineering, Dhanpat Rai & Sons, New Delhi
5. D.J. Victor, Essential of Bridge Engineering, Oxford & IBH Pub. Co. Ltd. Mumbai