



SNS COLLEGE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
COIMBATORE-35

III YEAR CIVIL ENGINEERING
19CEO304-BUILDING MAINTENANCE



CAUSES OF DEGRADATION

The following are the causes of failure of structure:

a) Occurrences incidental to construction stage.

This could be attributed to

- Local settlement of sub grade.
- Movement of formwork.
- Vibrations.
- Internal settlement of concrete suspension.
- Setting Shrinkage.
- Premature removal forms.



b)Drying Shrinkage

c)Temperature stresses – This may be due to

- Difference in temperatures between the inside of the building with its environment.
- Variation in internal temperature of the building or structure.

d)Absorption of moisture by concrete

e)Corrosion of reinforcement – This could be caused by

- Entry of moisture through cracks or pores.
- Electrolytic action



f) Aggressive action of chemical

g) Weathering action

h) Action of shock waves

i) Erosion

j) Poor design details at

- Re-entrant corners
- Changes in cross section
- Rigid joints in precast elements
- Deflections

This leads to

- Leakage through joints
- Inadequate drainage
- Inefficient drainage slopes
- Unanticipated shear stresses in piers, columns and abutments etc
- Incompatibility of materials of sections
- Neglect in design



k) Errors in design

l) Errors in earlier repairs

m) Overloading

n) External influences such as

Earthquake

Wind

Fire

Cyclones etc



THANK YOU...