



# Unit-I

# MAINTENANCE AND REPAIR STRATEGIES



## **Syllabus:**

- ❖ Maintenance, repair and rehabilitation
- ❖ Facets of maintenance
- ❖ Importance of maintenance
- ❖ Various aspects of inspection
- ❖ Assessment procedure for evaluating a damaged structure
- ❖ Causes of deterioration



# INSPECTION PERIODS

- ▶ **PRE-MONSOON PERIOD**

(Cleaning of drains, checking of roof leakages, collection of materials and equipments require during monsoon repairs, bridges and other structure which are not easily approachable during the monsoon )

- ▶ **MONSOON PERIOD** (Washing away of roads, railway tracks, collapse of roof and failure of walls)

- ▶ **POST-MONSOON PERIOD** (Replacement and rehabilitation work)



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# Various aspects Inspection:

- ▶ The following are the various maintenance aspects,
- ▶ Daily Routine Maintenance
- ▶ Weekly Routine Maintenance
- ▶ Monthly Routine Maintenance
- ▶ Yearly Routine Maintenance



# Daily Routine Maintenance

- ▶ Basically an inspection oriented and may not contain action to be taken
- ▶ Help in identifying major changes, development of cracks, identifying new cracks etc
- ▶ Inspection of all essential items by visual observation
- ▶ Check on proper function of sewer, water lines, wash basins, sinks etc
- ▶ Check on drain pipes from roof during rainy season.



# Weekly Routine Maintenance

- ▶ Electrical accessories
- ▶ Cob webs cleaning
- ▶ Flushing sewer line
- ▶ Leakage of water line



# Monthly Routine Maintenance

- ▶ Cleaning doors, windows etc
- ▶ Checking septic tank/sewer
- ▶ Observation for cracks in the elements
- ▶ Cleaning of overhead tanks
- ▶ Peeling of plaster, dampness, floor cracks





# Yearly Routine Maintenance

- ▶ Attending to small repairs and while washing
- ▶ Painting of steel components exposed to weather
- ▶ Check of displacements and remedial measures



# STAGES OF INSPECTION AND MAINTENANCE

## 1) INSPECTION

Collect data at specified intervals in specified form

## 2) ANALYSIS

- i) Add latest information to database which contains all earlier information
- ii) Examine progression of defects
- iii) Relate defects to action criteria



### 3) ACTION POSSIBILITIES

- i) Note and wait for the next inspection
- ii) Alter inspection frequency
- iii) Institute repairs
- iv) Further detailed investigation
- v) Put safety procedures in place

THANK YOU