



**DEPARTMENT OF CIVIL ENGINEERING**  
**FINAL TERM EXAMINATION**

**Subject:** Material Testing Repair & Maintenance  
**Instructor:** Engr Khurshid Alam  
**Course code:** CT-245

**Duration:** 4 hrs.  
**Total Marks:** 50

**Note: Attempt all questions. Manage your time properly. Understanding question paper is the part of examination. Draw diagrams wherever necessary. Please refer to your notes for assistance. Copy from internet will be marked less.**

No. (01) (5+5)

- a) Define Maintenance. Briefly describe facets of maintenance.
- b) Explain the necessitation of the maintenance.

No. (02) (5+5)

- a) What is meant by inspection periods? Briefly describe stages of inspection.
- b) What are the causes of building collapse? Briefly describe the role of cracks and corrosion affect in the collapse of building.

No. (03) (5+5)

- a) What is meant by faulty construction? Briefly describe insufficient beam-column joint support.
- b) Elaborate foundation failure. What are the main causes of foundation failure?

No. (04) (5+5)

- c) Describe the role of fire accidents in the collapse of building
- d) Differentiate between structural failure and economic failure.

No. (05) (10)

Define the following

- Failure of concrete structure
- Component failure
- Fundamental failure
- Non-progressive failure
- Progressive failure

**THE END**