

Awareness of various IS codes & standards

Introduction

Is codes (Indian standard codes) are a set of national standards developed by the 'Bureau of Indian standards (BIS) to ensure quality, safety, and reliability in various industries.

● Purpose:

1. Establish uniform standard for products and services
2. Facilitate innovation and technological advancement

Various IS Codes

1. IS 456:2000:

It is the Indian Standard for "Code of Practice for Plain and Reinforced Concrete." It provides guidelines and specifications for the design and construction of concrete structures.

Key feature of IS 456:2000

- | | |
|----------------------|---------------------------|
| 1. Materials | 3. Construction Practices |
| 2. Design Principles | 4. Reinforcement |

2. IS 800:2007

It is the Indian standard titled 'General Construction in Steel – Code of practice'. This code provide guideline for the design and construction of steel structures in India.

Main section

1. Design requirements for steel structures
2. Material specifications (e.g., steel grades, welding)
3. Fabrication and erection guidelines
4. Safety considerations (e.g., loading, wind, seismic)
5. Inspection and testing procedures
6. Quality control measures

3. National Building code of India 2016

The National Building Code of India 2016 (NBC 2016) is the latest version of the model building code developed by the Bureau of Indian Standards (BIS). It serves as a comprehensive guideline for construction activities across India.

Key Sections of NBC 2016:

- 1. Part 1: Building Design and Construction
- 2. Part 2: Administrative Requirements
- 3. Part 3: Fire and Life Safety
- 4. Part 4: Accessibility
- 5. Part 5: Building Services
- 6. Part 6: Structural Design
- 7. Part 7: Construction management, Practice and Safety
- 8. Part 8: Refurbishment and Retrofitting
- 9. Part 9: Urban and Regional Planning
- 10. Part 10: Sustainable Buildings and Development

4. IS 1343:2012

It is the Indian Standard Code of Practice for Pre-stressed Concrete, which provides guidelines for the structural use of Pre-stressed concrete. It covers both on-site work and the manufacture of precast Pre-stressed concrete units.

Key Feature (Section)

1. General provisions
2. Materials
3. Testing
4. General design requirements
5. Structural design using the limit state method

5. IS 4926:2003

It is the Indian Standard for "Code of Practice for Ready-Mixed Concrete." It provides guidelines for the production, transportation, and placement of ready-mixed concrete (RMC), ensuring quality control and consistency in concrete used for construction.

Key Feature (Section)

- Material Requirements
- Production Control
- Transportation
- Testing
- Site Practices

6. IS 10262:2019

It is the Indian Standard for "Guidelines for Concrete Mix Design." It provides a framework for designing concrete mixes to achieve specific strength, durability, and workability requirements.

Key Features (Section)

- Materials
- Target Mean Strength
- Proportioning of Ingredients
- Workability
- Durability Considerations
- Mix Design Procedure
- Quality Control

7. IS 1893:2016

It is the Indian Standard for "Criteria for Earthquake Resistant Design of Structures." This standard provides guidelines for the design and construction of buildings and structures to withstand seismic forces.

Key Features (Section)

- Seismic Zones
- Design Criteria
- Dynamic Analysis
- Material Considerations
- Foundation Design
- Special Structures

8. IS 2720 (Part 1):1980 - Methods of Testing Soils: Preparation of Soil Samples for Testing.

Key Feature (Section)

- Sample Collection
- Sample Preservation
- Sample Preparation
 - a) Disturbed Samples
 - b) Undisturbed Samples
- Identification of Samples
- Safety and Handling

List of References

- 1. Bureau of Indian Standard:- Is codes
retrieved from- Link:- <https://www.bis.gov.in/>**



THANK YOU