

DEPARTMENT : CIVIL YEAR : 1ST

SUBJECT NAME: BASIC CIVIL ENGINEERING

SUBJECT CODE: 3110004

FACULTY NAME: PROF. NUTAN PATEL

MODULE: 1

CHAPTER: 1 INTRODUCTION TO CIVIL ENGINEERING

- Q.1 Enlist the various branches of Civil Engineering. Explain in detail
- Q.2 Write a short note on Scope of Civil engineering.
- Q.3 Explain the role or duties of Civil Engineering.
- Q.4 Discuss the impact of infrastructural development on the economy of a country.

CHAPTER: 2 INTRODUCTION TO CIVIL ENGINEERING MATERIALS

- Q.1 Enlist the various materials used in Building Construction.
- Q.2 Write a short note on Cement.
- Q.3 What is Brick? Explain use of Bricks & types of bricks.
- Q.4 Write Properties of good Bricks.
- Q.5 Write a short note on Concrete.
- Q.6 Write a short note on Mortar.
- Q.7 Write a properties of good Timber.
- Q.8 Write a short note on traffic control devices.
- Q.9 Give Advantage & disadvantages of Traffic Signals.

MODULE: 2

CHAPTER: 3 INTRODUCTION TO BUILDINF AND TOWN PLANNING

- Q.1 Explain the fundamental Principal for the planning of a residential building in brief.
- Q.2 Write a short note on basic requirement of Building Planing.
- Q.3 Explain F.S.I in detail.
- Q.4 Explain Necessity of Town Planning.
- Q.5 Write a short note on Zoning.

MODULE: 3

CHAPTER: 4 BUILDING CONSTRUCTION

- Q.1 Explain the types of Building Based upon Occupancy.
- Q.2 Differentiate Load bearing and Frame Structure.
- Q.3 List Common Building Component and state their function.
- Q.4 Comparison between English Bond and Flemish Bond.
- Q.5 State and Explain types of Loads.

CHAPTER:5 BUILDING SERVICES

Q.1 Enlist the Material used for service Pipes and explain in detail.



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- Q.2 Write a short note on quality of good trap.
- Q.3 Write a short note on Sanitation.
- Q.4 Write a short note on electrification.
- Q.5 Write a short note on Switches.
- Q.6 Write a short note on MCB.
- Q.7 Write a short note on fuses.
- Q.8 Define a Plaster, necessity of Plaster.
- Q.9 Enlist required for Plastering and Pointing. Explain any two in detail with figure.

MODULE: 4

CHAPTER:6 INTRODUCTION OF SURVEYING

- Q.1 Define surveying? What are aims of surveying?
- Q.2 Explain the fundamental Principal of Surveying.
- Q.3 Explain various Division / Classification of Surveying.
- Q.4 Differentiate between Plane Surveying & Geodetic Surveying.
- Q.5 Differentiate between Plan & Map.
- Q.6 What are the Uses / Application of Surveying?

CHAPTER:7 LINEAR MEASUREMENT

- Q.1 Define a Linear Measurement, enlist the methods of linear measurement and explain in detail.
- Q.2 Write a short note on classification of Tap.
- Q.3 What is ranging? Enumerate various methods of Ranging.
- Q.4 Explain the direct ranging with the use of Line Ranger.
- Q.5 Define offset? Enlist the type of offset and explain in detail.
- Q.6 List out various instrument used for setting out right angle. Also briefly explain Optical square.

CHAPTER:8 ANGULAR MEASUREMENT

- Q.1 Define traversing. Enlist the types of traverse and explain in detail.
- Q.2 Differentiate between Whole circle Bearing (WCB) and Reduced Bearing (RB).
- Q.3 Write a short note on Prismatic Compass.
- Q.4 Write a short note on Surveyor Compass.
- Q.5 Enlist the uses of Compass.
- Q.6 Differentiate between Prismatic compass & Surveyor Compass.
- Q.7 What is Local attraction? What are the sources of Local attraction?
- Q.8 Explain Magnetic Declination.



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CHAPTER:9 LEVELING AND MODERN TOOLS

- Q.1 What is Leveling? What are the aims and application of leveling?
- Q.2 Define 1) Mean Sea Level (MSL)
 - 2) Bench Mark
 - 3) Reduced Level
- Q.3 Describe the dumpy level with sketch showing all component parts and discuss it.
- Q.4 Explain the temporary adjustment of Dumpy level.
- Q.5 Differentiate between Collimation Plane and Rise and Fall method.
- Q.6 Write a short note on Errors in Leveling.
- Q.7 Define Contour? Enlist the application of Contour.
- Q.8 What are the key components of GIS. Describe them briefly.
- Q.9 Define GPS? Explain the GPS use in Civil Engineering.
- Q.10 Briefly discuss about remote sensing.

MODULE: 5

CHAPTER: 10 ADVANCEMENT IN CIVIL ENGINEERING

- Q.1 Write a short note on solid waste management system.
- Q.2 Enlist the sources of Solid Wastes.
- Q.3 Explain in details the various methods of Collection of Solid Waste.
- Q.4 Write a short note on Bus Rapid Transit System (BRTS).
- Q.5 Write a short note on Rain Water Harvesting.
- Q.6 Explain in Detail about watershed management.
- Q.7 Write a short note on Green Building.
- Q.8 Enlist the types of River front Development.
- Q.9 Enlist the Features of Earthquake Resistant structure.
- Q.10 Enlist Features of Earthquake resistant Structure.