VIKASH INSTITUTE OF TECHNOLOGY, BARGARH

LESSON PLAN

Semester: 2nd	**Year: 1st**		**Course: B.Tech**
Branch : CE/CSE/EEE/ME	**Sub: Basic Civil Engineering.** **Sub Code : RBC2B002**		**Total Credit:03**
Name of the	**Mr. Manoranjan Dash**		
Designation :	**Assistant Professor**		
Department :	**Civil Engineering**		
Session	**2024-25**		
Recommended Books	**Text book**: **1. Basic Civil Engineering, S. Gopi, Pearson** **2. Surveying and Levelling by R. Subramanian, Oxford University Press** **Reference Books**: **1. Engineering Materials, S.C. Rangwala, Charotar Publishing House** **2. Basic Civil Engineering, M.S. Palanichamy, McGraw Hill**		

Sl. No.	Lecture No.	Topics to be covered	No. of Classes
		MODULE-1	
1	Lecture-01	Introduction and Scope of Civil Engineering	**13**
2	Lecture-02	Broad disciplines of Civil Engineering and Importance of Civil Engineering.	
3	Lecture-03	Early constructions and developments over time	
4	Lecture-04	Development of various materials of construction and methods of construction.	
5	Lecture-05	Brick as a construction material and its importance, qualities of a good brick	
6	Lecture-06	Stone: classification, composition and characteristics	
7	Lecture-07	Cement: Classification, tests for cement, uses of cement, types of cement	
8	Lecture-08	Concrete: Quality of mixing water, Workability, Compaction of concrete, concrete mix design, Grade and strength of Concrete.	
9	Lecture-09	Fundamentals of R.C.C. and Prestressed concrete. Types of steels used in civil engineering works.	
10	Lecture-10	Building Components and their basic requirements	
11	Lecture-11	Mortar, Stone masonry, brick masonry, roof and Floor	
12	Lecture-12	Problems on chain and tape Corrections	
13	Lecture-13	Doubt Clearing.	
		MODULE-2	
14	Lecture-14	Linear measurement and chain survey	**7**
15	Lecture-15	Use of chains and tapes for measurement of correct length of lines	
16	Lecture-16	direct and indirect ranging	
17	Lecture-17	Compass surveying: Use of prismatic compass	
18	Lecture-18	Bearing of a line. Local attraction.	
19	Lecture-19	Introduction to modern surveying instruments EDM and Total Station.	

20	Lecture-20	Automatic and Electronic or Digital levels.	
MODULE-3			
21	Lecture-21	Fundamental of soil and its classification	**6**
22	Lecture-22	Foundations: Types of shallow and deep foundations with neat sketches.	
23	Lecture-23	Fundamentals of Irrigation Engineering	
24	Lecture-24	Introduction of Hydraulics structure like canals, siphons, weirs, dams	
25	Lecture-25	Descriptions of canals, siphons, weirs, dams	
26	Lecture-26	Doubt Clearing	
MODULE-4			
27	Lecture-27	Introduction to Transport, Traffic and Urban Engineering	**9**
28	Lecture-28	Introduction to planning and design aspects of transportation engineering,	
29	Lecture-29	different modes of transport	
30	Lecture-30	highway engineering	
31	Lecture-31	rail engineering	
32	Lecture-32	airport engineering	
33	Lecture-33	traffic engineering	
34	Lecture-34	urban engineering	
35	Lecture-35	Doubt Clearing.	

Signature of Faculty **Signature of HOD**

PRINCIPAL