Department of Civil Engineering

Innovative Teaching Method: Preparation of Bore Log report using actual field data and IS code through mobile application

Name of Faculty: Dr. S. J. Kadbhane
Academic Year: 2023-24

Class: BE
Semesters: VII

Name of Subject: Foundation Engineering

Objectives of Methodology:

1. To aware student to prepare Bore Log report using field data and IS code
2. To develop an interest in field observation and Site Exploration

Details of Activity/Method:

In this teaching method, A general description of the foundation and soils encountered on the project, and a description of the terrain, including drainage, erosion patterns, high water elevation, flooding, and any other specific conditions that may be of value in the design of structures. Students first visited the field and collected the subsurface data. Students are studying the core samples extracted from the bore. After studying all parameters data summaries as per IS 1982-1979 code format. Students downloaded the IS code from mobile applications and studied the report

1. The methods of site investigation are dependent upon _____
a) Climatic condition
b) Nature of engineering project
c) Local topography
d) All of the mentioned

2. The information that should be yielded on-site exploration is_____
a) Rock formation
b) Depth of groundwater

c) Structural loading
d) All of the mentioned

3. Depending upon the details, the site exploration may be classified as _____
a) General and Detailed
b) Complex
c) None of the mentioned
d) All of the mentioned

4. What are the methods used for general exploration?
a) Subsurface penetration
b) Ground water exploration
c) Rock Cuttings
d) All of the mentioned

5. The number and disposition of bore holes are varied, depending upon _____
a) Surroundings
b) Strata
c) Subsoil condition
d) Ground water

6. The various method of site exploration can be grouped under, which of the following?
a) Open excavations and Borings
b) Soil strata
c) None of the mentioned
d) All of the mentioned

7. Exploratory borings in general exploration is carried out by using _____
a) Auger
b) Bore equipment
c) Well-curb
d) All of the mentioned

Sr. No.	Name Of Students	Knowledge Of Subject (4)	Understanding (4)	Timely (2)	Final Marks (10)
1	AGRAWAL OM SANJAY	4	4	2	10
2	AHIRRAO LEENA MAHENDRA	3	3	2	8
3	ARJUN SINGH	4	4	2	10
4	BANGAR MANOJ NAVNATH	4	4	2	10
5	BHADANE SURAJ NIVRUTTI	4	4	2	10
6	BHADANGE AVINASH SANTOSH	4	4	2	10
7	BORAVE VINAY SUNIL	3	3	2	8
8	CHAVAN DIVYA BARKU	4	4	2	10
9	DEORE RITESH RAKESH	4	4	2	10
10	JADHAV YOGINI DHANRAJ	3	3	2	8
11	JAGTAP TANISHKA DEVENDRA	4	4	2	10
12	KADLAG SANKET SANDIP	3	3	2	8
13	KAKAD ATHARVA MANIK	4	4	2	10
14	KHADANGALE VEDANT MANGESH	4	4	2	10
15	MAURYA KAJAL KARAMCHAND	4	4	2	10
16	MEHETRE AMAN GANESH	3	3	2	8
17	MUSALE SRUSHTI GIRISH	4	4	2	10
18	PAGAR YUVRAJ HIREN	4	4	2	10
19	PATHAN IMRAN SHAKIL	4	4	2	10
20	PATIL MAYURESH SOMNATH	3	3	2	8
21	PATIL YASHWARDHAN PRAMOD	3	3	2	8
22	PAWAR NIKITA ANIL	3	3	2	8
23	RAJOLE OM ANIL	4	4	2	10
24	RANDHIR PRANJAL SHASHIKANT	3	3	2	8
25	SALUNKE JANAVHI PRAKASH	3	3	2	8
26	SANGLE SAKSHI GORAKSHNATH	3	3	2	8
27	SHINDE ROHIT SOMNATH	4	4	2	10
28	SHIRSATH ROSHANI SURESH	3	3	2	8

29	SONAWANE ABHISHEK SHRIRAM	3	3	2	8
30	SONAWANE PRANAV RAMAKANT	4	4	2	10
31	TAJANPURE VAISHNAVI BHARAT	3	3	2	8
32	UGALE VIKAS RAJENDRA	4	4	2	10
33	VINIT SURYAKANT AGRAWAL	4	4	2	10
34	WANKHEDE SURAJ SANTOSH	4	4	2	10

Course Outcomes:

	After the completion of the course, students will be able to:	BTL
CO1	Perform subsurface investigations for foundations using different methods.	3

POs (Related to Methodology)

PO2	**Problem analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO4	**Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	**Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PSOs (Related to Methodology)

PSO1	Graduates will be able to apply fundamental knowledge, problem solving skills, engineering experimental abilities and design capabilities necessary for entering civil engineering career.
PSO3	Graduates will be able to apply technical and professional skills to be nationally competitive for employment/self-employment thereby benefit the society

Evidences: Activity Photographs/Videos/Sample PPT's : Photo

Shinde Rohit Somnath
Roll No : 61
Date : 27/09/23.

MVP Samaj's KBT COE, NASHIK

Innovative Teaching method.

Title : Preparation of borelog report using actual field data and IS code through mobile application.

Depth Below GL [m]	Soil description	Thickness of Strata [m]	Legend	Detail of sampling Type	Depth [m]	SPT N value
0.0	Filled up soil.			SPT.	1.5	8|8|10
				UDS	2.5	
1.0						N = 16.
2.8	Cohesive soil.	2.8				
3.0	Reddish Greyish sand	0.7.		SPT	8.0	10|9|0 N=19.
4.8				SPT	4.8	
	Greyish silty			UDS	8	12|14|25
6.0	sand / sand silty soil.			SPT	6	N = 39.
				UDS	6.5.	80|48|53
8.0				SPT.	8	N = 101.
		0.				
9.0	Weathered rock. 9.0 to	1.5				
10.0	10.5 m.					
10.5		1.5.				78 & for no penetration
	CR = 70%. RQD = 43%.			SPT	9.	

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Recorded Video Link :

Feedback/Impact Analysis (Based on Students Feedback):

Course Outcome

	Course Outcome	CO5	CO6
A	Students Achieving CO	34	34
B	Total Rating	34	34
C	Average Rating (A/B)	100	100

Program Outcome and Program-Specific Outcome

	Program Outcome	PO2	PO4	PO5	PSO1	PSO3
A	No. of Groups/Students Achieving PO	32	32	32	32	32
B	Total Rating	34	34	34	34	34
C	Average Rating (A/B)	94.11	94.11	94.11	94.11	94.11

Feedback / Critics / Suggestions Link:

https://docs.google.com/forms/d/e/1FAIpQLScnNEDfmoBmZcR8hMWAxMliBk3pJvGbqJkayOIG6WwiTXBw3A/viewform?usp=sf_link

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