BANGLADESH SWEDEN POLYTECHNIC INSTITUTE

SEMESTER PLAN

OF

4TH SEMESTER CONSTRUCTION TECNOLOGY (88)

SUBJECT **: GEOTECHNICAL AND FOUNDATION ENGINEERING (8843)**

CLASS TEACHER : MD. ABDUL KADER

T		**P**		C
3		**3**		4
T.C	T.F	**P.C**	**P.F**	Total
30	120	**25**	**25**	200

PRACTICAL

Week	Serial No.	Name of The Practical
01	1	Determine the water content of soil by over drying method.
02	2	Determine the specific gravity of soil by pycnometer method.
03	3	Determine the shear characteristics of soil by unconfined compression test.
04	4	Determine the amount of compaction and the water content by standard proctor test.
05	5	Determine the particle size of soil by sieve analysis.
06	6	Determine the liquid limit of soil by Casagrand grooving tool.
	7	Determine the plastic limit of soil.
07	8	Determine the co-efficient of permeability of soil by constant head test.
08	9	Collect the sample of soil by any method.
	10	Determine the bearing capacity of soil from standard penetration test (SPT).
09	11	Set out the center line and excavation line for a foundation of a small “L” shaped building.
10	12	Perform the stabilization of soil by cement-sand method.
	13	Perform the stabilization of soil by sand pile method.
11	14	Determine the ultimate bearing capacity of soil by plate bearing test.
12	15	Determine the bearing capacity of a test pile.
	16	Practice to improve the bearing capacity of soil.

Note: Performed Experiment report must be submit next class.

REFERENCE BOOKS:

1. Soil Mechanics and Foundation Engineering
   - Dr. K R Arora.
2. Soil Mechanics and Foundation
   - Dr. B C Punmia.
3. Foundation Engineering
   - Ralph B Peck, Walter, E Hanson