1] Active and Passive Earth pressure. (Arora - P-478)

2] Draw a neat diagram showing the variation of different co-efficient of earth pressure.

3] What are the principle objective of soil exploration? Write down the most common types of in situ tests. (in situ test → like vane shear test, SPT, CPT) (BM Das (P-558).

4] What are the different types of raft foundation? Explain the procedure for designing raft foundation. (Book-2 - P-15, BM Das Arora - 651)

5] Explain the various types of pile foundation.

6] Basic objectives and specification of soil compaction test. (Book-2, Page-435) (Book-2, Page. 405)

7] What is meant by OCR? Differentiate bet^n OC clay and NC clay. How will you find the pre consolidation of clay?

8] where and why geotextiles are used.

9] " " " raft " "

10] " " " sheet piling. " "

11] Draw and discuss different types of footing.

12] Differentiate the following:

Shey Seepage and permeability, Effective stress and total stress, Sand pile and sand drain.

13] When and why pile foundation is more suitable than that of shallow foundation.

14] State different methods for determining the co. eff of permeability of soil. Explain factors affecting the permeability of soil.

15] Difference bet^n primary and secondary consolidation of soil.

16] What is SPT? & How it is carried out in field? Explain the

relationship of SPT value with bearing capacity of soil.

17] Define shear strength of soil. Explain the shear characteristics of cohesive and cohesion less soil).

18] when and why pile foundation is considered for construction of Bridge? Discuss the merit and demerits of pile foundation:
i) Cast in situ pile ii) Pre cast concrete pile.

19] What are the causes of soil sample disturbance in soil test? Mention the effects of soil sample disturbance on the engineering properties of soil.

20] What are the main types of soil? How they differ from each other in respect of their characteristics and behaviour? What.

math

১। Consolidation math (P-12).

২। Pile math (P-12).

৩। bulk density, dry density, void ratio math (P-13).

৪। Consolidation math (P-5).

৫। Square footing design (28th).

৬। sq " " " (water table) (29th).

great depth সমর অনেক নীচে

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Date:

Plasticity index, Sand drain, Negative skin friction, Liquefaction of soil, (Flow index, toughness index, Liquidity index), Plast density index, over consolidated clay, Pore water pressure, Secondary settlement, cofferdam/well foundation, Co-eff of permeability, Degree of saturation, cofferdam), SPT, Sensitivity of soil, Geotextile and its use, Cantilever retaining wall, Compaction of soil, Mat foundation, Quick sand condition.

Mat Foundation (Book-2, 44).

Math: BM DAS (282, 298, 299).