

Roll No .....

**MVSE-301(B)**

**M.E./M.Tech. III Semester**

Examination, December 2016

**Advance Foundation Engineering (Elective-I)**

**Time : Three Hours**

**Maximum Marks : 70**

- Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. Explain in detail the Seismic method of soil exploration with its limitations. 14
2. a) Discuss various design features which affect the sample disturbance. 7  
b) Describe various types of shallow foundations with their suitability. 7
3. a) What are the limitations of plate load test? 5  
b) Explain the following: 9  
i) Modulus of subgrade reaction  
ii) Laterally loaded piles
4. a) Explain the following: 7  
i) Influence of pile cap  
ii) Pile driving  
b) Discuss various dynamic methods of estimating bearing capacity of piles. 7

5. a) Explain pile load test in detail. 7  
b) Describe various types of piles with their suitability. 7
6. a) Describe various types of coffer dams and their uses. 7  
b) Discuss various design criteria of Cellular coffer dam embedded in deep soil. 7
7. a) What are the general criteria for satisfactory action of a machine foundation? 7  
b) Discuss IS code provisions for design of Impact type of machine foundation. 7
8. Write short notes on any four of the following: 14  
a) Types of samples  
b) Raft foundation  
c) Site investigation  
d) Battered piles  
e) Interlock stresses  
f) Types of vibrations  
g) Construction of earth embankment cofferdam

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