

**Total No. of Pages : 01**

**Total No. of Questions : 08**

**M.Tech.(Geo Technical Engineering / Soil Mechanics & foundation Engineering) (2013 & Onwards)**  
**(Sem.-1)**

# ADVANCE SOIL MECHANICS

**Subject Code : CESE-1**

**Paper ID : [E1001]**

**Time : 3 Hrs.**

**Max. Marks : 100**

**INSTRUCTION TO CANDIDATES :**

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.
3. Assume any other data suitably if not given.

- Q1. What are various agents responsible for formation of soils? Discuss in detail.
- Q2. How the clay structural measurements are done in lab as well as in field? Is there any specific instrumentation involved in it? If yes then explain with the neat sketches.
- Q3. Discuss in detail permeability compression of dry of Optimum moisture content and wet of Optimum moisture content.
- Q4. What are various elastic theories of stress distribution in soils? Discuss in detail.
- Q5. How does over consolidation affect shear strength of soil? Explain.
- Q6. What are various factors affecting secondary consolidation of soil? Explain.
- Q7. What do you mean by the total stress analysis method of dealing with stress analysis? Explain its role in soil mechanics.
- Q8. Discuss how does Hyorslev's true shear parameters affect shear strength?