G.R. No.	

Paper Code – P119-113 (T1)

OCTOBER 2019 / INSEM (T1)
F. Y. M. TECH. (CIVIL - STRUCTURE) (SEMESTER - I)
COURSE NAME: SOIL STRUCTURE INTERACTION
COURSE CODE: CVPB11183B
(PATTERN 2018:R1)

Time: [1 Hour]　　　　　　　　　　　　　　　　[Max. Marks: 20]

(*) Instructions to candidates:
1) Answer Q.1 OR Q.2, Q.3 OR Q.4
2) Figures to the right indicate full marks.
3) Use of scientific calculator is allowed
4) Use suitable data where ever required

Q.1- a) Write a Short Note on the SSI article you had reviewed in
　　　　Assignment-1. [6]

Q.1- b) Explain the importance of understanding Soil-Structure Interaction. [4]

OR

Q.2-a) Write a Short Note on the failure case study you had reviewed in
　　　　Assignment-1. [6]

Q.2-b) What are the various parameters that affect Soil-Structure
　　　　Interaction? [4]

Q.3-a) What is contact pressure? Sketch contact pressure distribution
　　　　diagram for flexible base for clayey and sandy soil for surface load. [6]

Q.3-b) If soil unit density = 18 kN/m³, Weight of Building to be supported on
　　　　the soil = 5000 Tons Soil Excavation Foot-Print = 20 m x 20 m, then
　　　　what will be the depth of soil excavation to maintain original stress-
　　　　levels in soil when the building is constructed? [4]

OR

Q.4-a) What is contact pressure? Sketch contact pressure distribution
　　　　diagram for rigid base for clayey and sandy soil for surface load [6]

Q.4-b) What are Plane Stress and Plane Strain conditions?
　　　　Give Examples [4]