

**CVL121 ENGINEERING GEOLOGY**

**19.11.2017**

**MAJOR**

**Marks: 50**

**LHC :114**

**Answer All Questions. Wherever Necessary Answer with Sketches**

Q.1 A Coal seam (formation) is met with at depth of 300ft at A, 200ft at B and 400ft at C by boring. Determine the attitude of the Coal seam and complete the outcrop. At what depth will the seam be met with at D? (6)

Q.2 What is Failure Envelope for rocks? What tests you need to perform to construct such an envelope? (6)

Q.3 Discuss the Effects of Pressure and Temperature on materials? Give examples of the resulting Structures (6)

Q.4 Magnitude and Intensity of an Earthquake defines which aspects? How do you estimate earthquake shear force for a five storeyed building in Delhi region? (6)

Q.5 How are the different structural features influence the Tunnels, Slope and Foundations? (6)

Q.6 What is Scan line survey? How is it done for an excavated rock slope? (6)

Q.7 Mention two failure criteria you have studied. Explain with the help of any one how to predict strength of rock and rockmass ? (6)

Q.8 Faults are due to the stress state at location? Illustrate how stress state influences the different faults? (4)

Q.9 What is effective stress and explain (2)

Q.10 Explain Estimation of Brazilian Tensile strength in the lab? (2)