

Answer all Questions

- Q1. Explain the Barton's shear strength model of Rock Joints?
Discuss briefly further developments to predict shear strength of Rough jointed rock mass (5)
- Q2. Explain Different Energy Components in an Explosion
Describe the Phenomena of Rock breakage due to Explosion? (4)
- Q3. What is Free space? How do you create free space in Underground Excavation (4)
- Q4. How do you Estimate energy release from a blast?
Explain with an Example the Role of AL (Aluminium) in blast reaction (4)
- Q5. Short Notes on (2x4 = 8)
- Cut and Cover Method
 - Strength Dependency on Degree of Weathering
 - Role of σ_2 on Rock Anisotropy
 - CNL and CNS Conditions