Time: 3 Hours **Total Marks: 80** Note: 1. Question number 1 is compulsory; 2. Attempt any three out of the remaining five questions. 3. Draw neat sketches wherever necessary. 4. Figure to the right indicates full marks. Q1 Attempt any four Explain working principles of lift. a) Compare single phase and three phase electric supply. b) Explain fire preventions in buildings. c) Write a note on corrosion resistant steel. d) Write a note on water meter. e) f) Write a note on polymer concrete. Q2 Explain in detail modern lighting with examples. a) Explain in detail septic tank. 10 b) Explain the causes of deterioration of concrete. 10 Q3 a) Discuss in details the types and causes of cracks in structures. b) 10 **Q**4 Write a note on destructive and nondestructive tests 10 a) Explain grouting and discuss in detail about injection grouting. b) 10 Q5 Explain in detail the causes of accidents on construction sites. 10 a) Draw and explain water supply system of a residential building b) 10 Write notes on the following (any four) 20 Tender documents a) 4 Cathodic protection b) c) Causes of fire in building Factors affecting visual task d) Causes of seepage in structures