

Note: The marks given for each question is only a guideline and is subject to changes

- 1) Bring out four major differences between the following:
 - a) Drawings and Specifications (8)
 - b) Approximate estimate and Detailed estimate (8)
 - c) Owner's, Engineer's and Contractor's estimate (12)
- 2) A small concreting subcontractor has the following resources (L1, L2, E1, E2, M1) and frequently uses the concreting methods - S1. The subcontractor is currently preparing an estimate for a new concreting job in which he has to pour concrete. As shown in the figure, the new concreting job is a water tank measuring 7m X 5m internally and the shaded portion is of concrete. Normal working day is eight hours. Calculate the total cost and time required to finish the job taking into consideration the following information. (12)
 - a) Labor rate L1 is INR 150/hr and L2 is INR 250/hr.
 - b) Equipment E1 cost is INR 600/hr & E2 is INR 1050/hr.
 - c) The unit cost of the material (ready mix concrete) M1 is INR 2000/m³.
 - d) The crew formation C1 is 2L1 + 3L2 + 1E1 + 1E2.
 - e) The required resources for this concreting method are C1 + M1 and the production rate is 100m³/day.

