Estimate:

a) Total Direct Plant Cost
b) Fixed Capital Equipment, FCE
c) Total Capital Investment, TCE

Given: Purchased Equipment = $300,000

Pentaerythritol Plant (Solid/Fluid Phase) (Pharmaceutical Intermediate)

Addition to Chemical Plant Complex

Know: Contractor's Fee is 7% of Direct Plant Cost

- Most of Building is for Indoor Construction - (DELETE)

- All other costs close to average

Use Method C - Study Estimate
USE METHOD C - STUDY ESTIMATE

Purchased Equipment = $300,000
Delivery @ 0.10 Purch. Equip. = $30,000

$330,000

DIRECT COSTS FROM TABLE 6-9

for Solid/Fluid

(All values for all) = 39% + 26% + 31% + 10%
+12% + 55% + 29% + Equip

= 202% + Equip = $302,200

D = (302%) (Purchased Equipment)

= (3.02)(330,000)

= $997,000
(b) FCI = DIRECT COST PLUS INDIRECT COST

Indirect Costs from Table 6-9 for Solid/Fluid
(AVG VALUES for each except for Contractor's Fee)

= 32% + 34% + 4% + 37% = 107% ($330) = $353,000

Contractors Fee = 7% of Total Direct Cost

= (0.07)($97,000) = $6,800

Total Indirect Cost = $353,000 + 70,000

= $423,000

FCI = DIRECT + INDIRECT COSTS

= $97,000 + 423,000

= $1,420,000
(c) $T_C I$

Working Capital = 0.15 ($T_C I$)  \hspace{1cm} (Table 6-9)

$T_C I = FCI + 0.15 \times TCI$

$T_C I = \frac{FCI}{1-0.15} = \frac{FCI}{0.85}$

$T_C I = \frac{1,420,000}{0.85}$

$= 1,670,000$