

#### D. SELECTION OF WATER-CEMENT RATIO

From Table -5 of IS-456

TRIAL I	TRIAL II	TRIAL III
0.45	0.495	0.405

0.495 < 0.50, Hence OK.

#### E. SELECTION OF WATER CONTENT

From Table 2, water content for 20 mm size aggregate and fine aggregate grading Zone-II = 0.62 per unit volume of total aggregate. This is valid for water-cement ratio of 0.45. In the present case water-cement ratio is 0.495. Therefore, volume of coarse aggregate =

	<b>186.00</b>	kg/m <sup>3</sup>
Adjustment :- Add @ 3 % for every 25mm slump. Then actual water content	5.58	kg/m <sup>3</sup>
Total	191.58	kg/m <sup>3</sup>
<b>Net water required</b>	<b>191.58</b>	kg/m <sup>3</sup>

#### F. CALCULATION OF CEMENT CONTENT

Water-cement ratio  
Cement content

TRIAL I	TRIAL II	TRIAL III
0.45	0.495	0.405
425.73	387.03	473.04

>360 and <450  
Except trial III

kg/m<sup>3</sup>  
OK

#### G. PROPORTION OF VOLUME OF COARSE AGGREGATE AND FINE AGGREGATE

From Table 3, volume of coarse aggregate corresponding to 20 mm size aggregate and fine aggregate grading Zone-II = 0.62 per unit volume of total aggregate. This is valid for water-cement ratio of 0.45. In the present case water-cement ratio is 0.495. Therefore, volume of coarse aggregate =

Volume of fine aggregate content = 1 - volume of CA

TRIAL I	TRIAL II	TRIAL III
0.630	0.621	0.639
0.370	0.379	0.361