



## SOLUTION

<b>Total c/c length of 23cm wall =</b>							Marks	
$1(0.23/2+2.5+0.23/2)+2(0.23/2+2.5+0.23/2)$ (KITCHEN) $+2(0.23/2+3+0.23/2)+2(0.23/2+3.5+0.23/2)$ (BED ROOM) $+2(0.23/2+3.5+0.23/2)+1(0.23/2+3.5+0.23/2)$ (DINING) $+2(0.23/2+2+0.23/2)+1(0.23/2+1.5+0.23/2)$ (TOILET) $+1(0.23/2+3+0.23/2)+1(0.23/2+4.5+0.23/2)+1(0.23/2+1.27+0.23/2)$ (HALL) $+1(0.23/2+1.5+0.23/2)+1(0.23/2+1.77+0.23/2)$ (VERANDAH)								
$= 1(2.73)+2(2.73)$ $+2(3.23)+2(3.73)$ $+2(3.73)+1(3.73)$ $+2(2.23)+1(1.73)$ $+1(3.23)+1(4.73)+1(1.5)$ $+1(1.73)+1(2)$							<b>=52.68m</b>	05
<b>No. Of junctions = 8</b>							05	
item no.	Particulars of item	no.	L	B	H	Q	Remarks	
<b>1</b>	<b>Earthwork in excavation</b>							
	23cm wall	1	47.88	1.2	1.2	<b>68.94</b>	$L=52.68-8(1.2/2)$	05
<b>2</b>	<b>Lime concrete in foundation</b>							
	23cm wall	1	47.88	1.2	0.15	<b>8.61</b>	$L=52.68-8(1.2/2)$	05
<b>3</b>	<b>SSM in foundation and plinth</b>							
	23cm wall-step 1	1	49.08	0.9	0.4	17.66	$L=52.68-8(0.9/2)$	02
	Step-2	1	49.68	0.75	0.4	14.90	$L=52.68-8(0.75/2)$	02
	Step-3	1	50.28	0.60	0.6	18.10	$L=52.68-8(0.6/2)$	02
	plinth	1	50.88	0.45	0.6	13.73	$L=52.68-8(0.45/2)$	02
						<b>64.39m<sup>3</sup></b>		02
<b>4</b>	<b>First class Brickwork in superstructure</b>							
	23cm wall	1	51.76	0.23	3.1	36.90	$L=52.68-8(0.23/2)$	6
	<u>Deductions</u>							
	D	4	1.0	0.23	2.1	<b>1.93</b>		4
	d	1	0.9	0.23	2.1	<b>0.43</b>		
	W1	1	2.5	0.23	1.8	<b>1.03</b>		
	W2	1	1.5	0.23	1.2	<b>0.414</b>		
	W3	1	1.0	0.23	1.2	<b>0.276</b>		
	W4	1	1.0	0.23	0.75	<b>0.17</b>		
	V1	1	0.6	0.23	0.6	<b>0.08</b>		

	Lintels						Lintel bearing = 10cm	Mar k
	D	4	1.2	0.23	0.15	0.1656		5
	d	1	1.1	0.23	0.15	0.03795		
	W1	1	2.7	0.23	0.15	0.09315		
	W2	1	1.7	0.23	0.15	0.05865		
	W3	1	1.2	0.23	0.15	0.0414		
	W4	1	1.2	0.23	0.15	0.0414		
	V1	1	0.6	0.23	0.15	0.0207		
						(-) 4.788		
	Total quantity of first class brickwork = 36.90-4.788 = <b>32.11m<sup>3</sup></b>							

### ABSTRACT

(5 marks)

Item no.	Particular of item	unit	rate	quantity	Amount
1	<b>Earthwork in excavation</b>	m <sup>3</sup>	380	68.94	26197.20
2	<b>Lime concrete in foundation</b>	m <sup>3</sup>	3000	8.61	25830.00
3	<b>SSM in foundation and plinth</b>	m <sup>3</sup>	2200	64.39	141658.00
4	<b>First class Brickwork in superstructure</b>	m <sup>3</sup>	4500	32.11	144495.00
				Total	338180.20
	Add 3% for contingencies				10145.40
	Add 2% for work charge establishment				6763.60
			<b>Grand total</b>		<b>3,55,089.20</b>