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1.0 EXCAVATION

1. Removing top soil to depth not exceeding 6" & depositing as directed within site.

Per square

Consider an area of 10.00 sqrs. i.e. 5.00 cubes of excavation 10 days u/sk

2. Excavation over site to reduce level, in any material except rock requiring blasting including depositing and leveling as directed up to a distance not exceeding 30' 0".

Per cube

1 5/8 day u/sk labourer.

3. Excavation in trenches for walls / column pits in soft / loose soil from 0' 0" to 5' 0" deep and depositing excavated material to a distance not exceeding 30' 0" (earth work support to be paid separately where necessary.)

Per cube

1 day u/sk labourer.

4. Excavation in trenches for walls / column pits in ordinary soil from 0' 0" to 5' 0" deep and depositing excavated material not exceeding 30' 0".

Per cube

2 1/4 days u/sk labourer.

5. Excavation in trenches for walls / column pits in hard / dense soil up to a depth of 5' 0" and depositing excavated material up to a distance not exceeding 30' 0".

Per cube

3 1/2 days u/sk labourer.

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6. **Excavation in trenches for walls / column pits in mud / wet soil up to a depth of 5' 0" and depositing excavated material to distance not exceeding 30' 0".**
(Earthwork & de-watering paid for separately)

Per cube

3 days u/sk labourer.

7. **Excavation in trenches for walls / column pits in soft disintegrated rock (not requiring blasting) up to a depth of 5' 0" and depositing excavated material to distance not exceeding 30' 0".**

Per cube

2 ½ days u/sk.

8. **Excavation in trenches for walls / column pits in hard rock requiring blasting up to depth of 5' 0" and depositing excavated material to a distance not exceeding 30' 0".**

Per cube

Materials

0.75 lbs. Blasting powder.

10 L. ft. Fuse.

1 lb. Jumper steel.

Fuel & forge – 20% of material cost.

Labour

1 day sk

2 days u/sk

9. **Benching rock in foundation in 3" – 6" steps.(Blasting prohibited)**

Per 10 square feet

Drilling, chipping & wedging.

1 ½ day sk labourer.

Steel, fuel & forge – 25% of labour cost.

Collecting & disposing.

1 ½ day u/sk labourer.

2.0 ANTI – TERMITE TREATMENT

10. ANTI – TERMITE TREATMENT

Anti – termite treatment on excavated foundation, and compacted soil under floors.

Per square

Materials

16 lbs. D. D. T. powder.
(8% in 20 gals of water)
20 gals water.

Labour

½ day u/sk labourer.

Note: Alternative mixes.

(a) Copper naphthenate (5% in 4 to 8 gals. Of fuel oil)

(b) Sodium arsenate (10% in 12 to 20 gals.) of water.

(c) Dieldrine (0.3% in 19 gals. Of water).

3.0 EARTH WORK

11. Earthwork – Back-filling & Compacting.

Backfilling to trenches with selected earth available at site.

Per cube

1 day u/sk labourer.

12. Back-filling to trenches with imported material.

Per cube

1.0cube earth delivered at site.

Allow 15% compaction.

Filling & compacting.

1 ½ u sk labourer.

13. Filling under floor including leveling, watering & compacting in 3” layers with available and selected earth at site.

Per cube

2 days u/sk labourer.

14. Filling under floors including leveling, watering & compacting in 3” layer with imported selected earth.

Per cube

1.0cube earth delivered at site.

Allow for 15% compaction.

2 days u/sk labourer.

15. Cutting turf sods, loading to hand carts and transporting up to 30 yards, laying and watering for 30 days. (Royalty for turf, pegging and transport beyond 30 yards paid separately)

Per square

Cutting turf sods, loading and transporting to site and unloading.

2 ½ days u/sk labourer.

Laying turf rods at site.

½ day u/sk labourer.

Watering for 30 days.

1 ½ days u/sk labourer.

60 gls. Water.

Note

Rate does not include for:

(a) Royalty for turf.

(b) Transport of turf.

(c) Pegs on sloping site.

(d) Water.

4.0 EARTH WORK SUPPORT

16. Earth work support. (open planking) in trenches up to a depth of 5' 0".

Consider trench 15' 0" long. 3' 0" wide and 5' 0" depth. open planking to both faces.

Total area – $2 / 15' 0" \times 5' 0" = 150$ sq. ft.

Per 150 sq. ft.

Materials

17.50 cu. ft. class II timber.
(4 uses)

Add 5% on above for wedges.

Labour

1 day carpenter.
3 days u/sk labourer.

17. Earth work support (close planking) in trenches up to 5' 0" depth.

Consider trench 15' 0" long 3' 0" wide and 5' 0" height of planking to both faces.

Total area of planking $2 / 15' 0" \times 5' 0"$ i.e. 150 sq. ft.

Per 150 sq. ft.

Materials

30.00 cu. Ft class II timber.
(4 uses)

Add 5% on above for wedges.

Labour

2 days carpenter.
6 days u/sk labourer.

18. Earth work support (close planking) in deep excavation in trenches up to 15' 0" depth.

Consider trench of length of 15' 0" width 5' 6" at top 3' 6" at bottom.

Then area supported is $2 / 15' 0" \times 15' 0"$ i.e. 450 sq. ft.

Per 450 sq.ft.

Materials

100.00 cu. ft. class II timber. (4 uses)
Add 5% on above for wedges.

Labour

8 days carpenter.
20 days u/sk labourer.

5.0 CONCRETE

PREAMBLE

Assumptions

1. Mixing concrete using a concrete mixer 14/10 cu. ft capacity and manual loading are the basis on which the norms are worked.
2. A gang of one skilled and six skilled labourers produce 3.0 cubes concrete per day using a 14/10 cu. Ft capacity concrete mixer. This is as per accepted practice.
3. The production of concrete is at the mixer site ; transporting mixed concrete and placing same in position is paid for separately.
4. In concrete items 26 to 39 both inclusive ,placing of concrete in columns, beams and floor slabs on the ground floor the labour component allowed is for the placing of concrete between the ground floor and the top of the 1st floor slab which area is called the ground floor area. Similarly the area between the top of the 1st floor slab and top of the 2nd floor slab is called the 1st floor area, etc.

19. Mixing concrete 1:3:6 (1 ½")

Per cube

Materials

13. cwt. (50 kg. Bags) cement.

0.53 cubes sand.

0.92 cubes 1 ½" metal.

1/3 day hire of mixer.

Water (110 gals)

Labour

1 day skilled labourer.

6 days u/sk labourer.

Note

(a) water available at site.

(b) If, water is not available allowances should be made for transport of water.

(c) Sand – included 15% for bulking.

20. **Mixing concrete 1 : 2 ½ : 5 (1")**

Per cube

Materials

14 cwt. Cement (50 kg. Bags)
0.60 cubes sand.
0.90 cubes 1" metal.
1/3 day hire of mixer.
Water (100 gals.)

Labour

1 day skilled labourer.
6 days unskilled labourer.

Note

- (a) water available at site.
- (b) If, water is not available allowance should be made for transport of water.
- (c) Sand – Included 15% for bulking.

21. **Mixing concrete 1:2:4 (¾")**

Per cube

Materials

18 cwt. Cement (50 kg. Bags)
0.50 cubes sand.
0.88 cubes ¾" metal.
1/3 day hire of mixer.
Water – (120 gals)

Labour

1 day skilled labourer.
6 days u/sk labourer.

Note

- (a) water available at site.
- (b) If, water is not available at site allowance must be made for transport of water.
- (c) Sand – includes 15% for bulking.

22. **Mixing concrete 1:1 ½:3 (¾")**

Per cube

Materials

23 cwt cement (50 kg. Bags)
0.42 cubes sand.

0.82 cubes ¾" metal.

1/3 day hire of mixer.

Water (150 gals.)

1 : 2 : 2 ½ (¾") Gr 301 - 8 -
C/Sk. (Gr 35)

Labour

1 day skilled labourer.

6 days u/sk labourer.

Note

(a) Water available at site.

(b) If, water is not available must be made for transport of water.

(c) Sand – includes for 15% bulking.

23. Mixing concrete 1:1 :2 (¾”)

Per cube

Materials

31 cwt. cement (50 kg. Bags)

0.44 cubes sand.

0.96 cubes ¾” metal.

1/3 day hire of mixer.

Water (200 gals.)

Labour

1 day skilled labourer.

6 days u/sk labourer.

Note

a) Water available at site.

b) If, water is not available must be made for transport of water.

c) Sand – includes for 15% bulking.

24. 2” thick cement concrete screed in foundation at depths not exceeding 5’ 0”.

Per square

Materials

1/6 cube concrete.

Add 10% for wastage.

Labour

1/8 day sk labourer.

½ day u/sk labourer.

Note

For laying concrete at depth more than 5’ 0” add 1/6 day unskilled labourer for each additional 5’ 0” or part there of per square.

25. 3" thick cement concrete screed in foundation at depth not exceeding 5' 0".

Per square

Materials

¼ cube concrete.
Add 10% for wastage.

Labour

1/8 day sk labourer.
¾ day u/sk labourer.

Note

For laying concrete at depth more than 5' 0", add ¼ day unskilled labourer for each. Additional 5' 0" or part there of per square.

26. 6" thick cement concrete floor (mass concrete)

Per square

Materials

0.50 cubes concrete
add 5% for wastage.
Water (200 gals.)

Labour

½ day sk labourer.
1 ¼ days u/sk labourer.

Note

- (a) *Water available at site.*
- (b) *If, water is not available allowance must be made for transport of water.*

27. Cement concrete in 4 ½" x 6" columns in ground floor.

Consider 24 No. columns each 4 ½" x 6" x 10' 0" i.e. 0.45 cubes.

Per 0.45 cube

Materials

0.45 cubes concrete.
Add 10% for wastage.
1 day hire of vibrator.

Labour

1 day mason.
1 day carpenter.
3 days u/sk labourer.
1 day sk labourer. (vibrator)

Curing

Jutehessian – 10 sq. ft.
Water – 170 gals.
1 day u/sk labourer.

Note

- (1) For columns in 1st floor add 3% to ground floor rate.
- (2) For columns in 2nd floor add 5% to ground floor rate.
- (3) For columns in 3rd floor add 7% to ground floor rate.
- (4) Water available at site.
- (5) If water is not available allowance must be made for transport of water.

28. Cement concrete in 6" x 6" columns in ground floor.

Consider 18 No. columns 6" x 6" each 10' 0" high i.e. 0.45 cubes.

Per 0.45 cubes

Materials

0.45 cubes concrete.
Add 10% for wastage.
1 day hire of vibrator.

Labour

1 day mason.
1 day carpenter.
1 day skilled labourer (vibrator)
3 days u/sk labourer.

Curing

Jutehessian – 80 sq. ft.
Water – 140 gals.
1 ½ days u/sk labourer.

Note

- (1) For columns in 1st floor add 3% to ground floor rate.
- (2) For columns in 2nd floor add 5% to ground floor rate.
- (3) For 2 columns in 3rd floor add 7% to ground floor rate.
- (4) Water available at site.
- (5) If water is not available allowance must be made for transport of water.

29. Cement concrete in 9" x 9" columns in ground floor.

Consider 8 No. 9" x 9" columns each 10' 0" high i.e. 0.45 cubes.

Per 0.45 cubes

Materials

0.45 cubes concrete.
Add 10% for wastage.
1 day hire of vibrator.

Labour

1 day mason.
1 day carpenter.
1 day sk labourer.(vibrator)
3 days u/sk labourer.

Curing

Jutehessian – 60 sq.ft.

Water – 100 gals.

½ day u/sk labourer.

Note

- (1) For columns in 1st floor add 3% to ground floor rate.
- (2) For columns in 2nd floor add 5% to ground floor rate.
- (3) For columns in 3rd floor add 7% to ground floor rate.
- (4) Water available at site.
- (5) If, water is not available allowance must be made for transport of water.

30. Cement concrete in 12" x 12" columns in ground floor.

Consider 5 No. columns 12" x 12" each 10' 0" high.

Per 0.50 cubes

Materials

0.50 cubes concrete.

Add 5% for wastage.

40. sq. ft. Jutehessian.

1 day hire of vibrator.

Water (100 gals.)

Labour

1 day mason.

1 day carpenter.

1 day sk labourer. (vibrator)

3 days u/sk labourer.

1 ½ days u/sk labourer.(curing)

Note

- (1) For columns in 1st floor add 3% to ground floor rate.
- (2) For columns in 2nd floor add 5% to ground floor rate.
- (3) For columns in 3rd floor add 7% to ground floor rate.
- (4) Water available at site.
- (5) If water is not available allowance must be made for transport of water.

31. Cement concrete in 13 ½" x 13 ½" columns in ground floor.

Consider 4 No. columns 13 ½" x 13 ½" each 10' 0" high i.e. 0.51 cubes.

Per 0.51 cubes

Materials

0.51 cubes concrete.

Add 5% for wastage.

1 day hire of vibrator.

Labour

1 day mason.
 1 day carpenter.
 3 days u/sk labourer.
 1 day sk labourer (vibrator)

Curing

Jute-hessian 45 sq. ft.
 Water - 100 gals.
 1 ½ days u/sk labourer

Note

- (a) Water available at site.
 (b) If water is not available allowance must be made for transport of water.

32. Cement concrete in 6" x 6" beam up to 1st floor level.

Consider 180 L. ft. of beam 6" x 6" i.e. 0.45 cubes.

Per 0.45 cubes**Materials**

0.45 cubes concrete.
 Add 10% for wastage.
 1 day hire of vibrator.

Labour

1 day mason.
 1 day carpenter.
 1 day sk labourer. (vibrator)
 4 days u/sk labourer.

Curing

Jutehessian 90 sq. ft.
 Water 180 gals.
 1 ½ days u/sk labourer.

Note

- (a) Water available at site.
 (b) If water is not available allowance must be made for transport of water.

33. Cement concrete in 9" x 6" beam up to 1st floor level.

Consider 120 L. ft. 9" x 6" beam i.e.. 0.45 cubes.

Per 0.45 cubes**Materials**

0.45 cubes concrete.
 Add 10% for wastage.
 1 day hire of vibrator.

Labour

1 day mason.
 1 day carpenter.
 1 day sk labourer. (vibrator)
 4 days u/sk labourer.

Curing

Jutehessian 75 sq. ft.

Water 150 gals.

1 ½ days u/sk labourer.

Note

(a) Water available at site.

(b) If water is not available allowance must be made for transport of water.

34. Cement concrete in 9" x 9" beam up to 1st floor level.

Consider 80' 0" length of 9" x 9" beam i.e.. 0.45 cubes.

Per 0.45 cubes

Materials

0.45 cubes concrete.

Add 10% for wastage.

1 day hire of vibrator.

Labour

1 day mason.

1 day carpenter.

1 day sk labourer. (vibrator)

4 days u/sk labourer.

Curing

Jutehessian 60 sq. ft.

Water 120 gals.

1 ½ days u/sk labourer.

Note

(a) Water available at site.

(b) If water is not available allowance must be made for transport of water.

35. 5" thick R.C.C. floor slab in 1st floor.

Consider 5" thick slab 10' 0" x 12' 0" volume of concrete 50.00 cu.ft.

Per 50.00 cu.ft.

Materials

50.00 cu.ft. concrete.

Add 10% for wastage.

1 day hire of vibrator.

Labour

1 day mason.

1 day carpenter.

1 day sk. Labourer.(vibrator)

4 days u/sk labourer.

Curing

Jutehessian 30 sq. ft.

Water 90 gals.

1 ½ days u/sk labourer.

Note

(a) Water available at site.

(b) If water is not available allowance must be made for transport of water.

36. 6" thick R.C.C. floor slab in 1st floor.

Consider 10' 0" x 10' 0" panel = 50 cu.ft.

Materials

50.00 cu.ft. concrete.

Add 10% for wastage.

1 day hire of vibrator.

Labour

1 day mason.

1 day carpenter.

1 day sk. Labourer.(vibrator)

4 days u/sk labourer.

Curing

Jutehessian 25 sq. ft.

Water 90 gals.

1 ½ days u/sk labourer.

Note

(a) Water available at site.

(b) If water is not available allowance must be made for transport of water.

37. Cement concrete in 4 ½" x 6" lintels in ground floor.

Consider 240 L. ft. i.e. 45 cu. ft.

Materials

45.00 cu.ft. concrete.

Add 10% for wastage.

1 day hire of vibrator.

Labour

1 day mason.

1 day carpenter.

1 day sk labourer. (vibrator)

4 days u/sk labourer.

Curing

Jute-hessian 10 sq.ft.

Water 90 gals.

1 ½ days u/sk labourer.

Note

(a) *Water available at site.*

(b) *If water is not available allowance must be made for transport of water.*

38. Cement concrete in 9" x 9" lintels in ground floor.

Consider 80 L. ft. of lintel i.e. 45 cu. ft. concrete.

Materials

45.00 cu. ft. cement concrete.

Add 10% for wastage.

1 day hire of vibrator.

Labour

1 day mason.

1 day carpenter.

1 day sk labourer. (vibrator)

4 days u/sk labourer.

Curing

Jutehessian 60 sq.ft.

Water 90 gals.

1 ½ days u/sk labourer.

Note

(a) *Water available at site.*

(b) *If water is not available allowance must be made for transport of water.*

39. Cement concrete in 9" x 12" lintels in ground floor.

Consider length 60' 0" of lintel = 45 cu. ft.

Materials

45 cu. ft. concrete.

Add 10% for wastage.

1 day hire of vibrator.

Labour

1 day mason.

1 day carpenter.

1 day sk labourer. (vibrator)

4 days u/sk labourer.

Curing

Jute-hessian 10 sq.ft.

Water 90 gals.

1 ½ days u/sk labourer.

Note

(a) Water available at site.

(b) If water is not available allowance must be made for transport of water.

38. Cement concrete in 9" x 9" lintels in ground floor.

Consider 80 L. ft. of lintel i.e. 45 cu. ft. concrete.

Materials

45.00 cu. ft. cement concrete.

Add 10% for wastage.

1 day hire of vibrator.

Labour

1 day mason.

1 day carpenter.

1 day sk labourer. (vibrator)

4 days u/sk labourer.

Curing

Jutehessian 60 sq.ft.

Water 90 gals.

1 ½ days u/sk labourer.

Note

(a) Water available at site.

(b) If water is not available allowance must be made for transport of water.

39. Cement concrete in 9" x 12" lintels in ground floor.

Consider length 60' 0" of lintel = 45 cu. ft.

Materials

45 cu. ft. concrete.

Add 10% for wastage.

1 day hire of vibrator.

Labour

1 day mason.

1 day carpenter.

1 day sk labourer. (vibrator)

4 days u/sk labourer.

6.0 TIMBER FORMWORK

41. Sawn timber form work to 9" x 9" cement concrete column in ground floor

Per square ft

Consider column length of 5'0" contact area = 15 sq. ft

a) Making mould

Materials

18.15sq. ft 1" thick class II timber

17.10L. ft 2" x 2" class II timber in yokes

16.12L. ft 2" x 1" class II timber battens

1 ½ lb. Wire nails

Fabricating

½ day carpenter

½ day u/sk

b) Assembling

Materials

12 Nos. 16 mm 18" long bolts (20 uses)

½ liter mould oil

35 L. ft 4" x 2" props (10 uses)

Labourer

¼ day carpenter

¼ day u/sk

c) Dismantling, cleaning & repairing (per Use)

¼ day carpenter

¼ day u/sk

42. Sawn timber form work for concrete beams in ground floor

Consider 9" x 12" beam of 20'0" long .contact area = 55 sq. ft

a) Making mould

Materials

60 sq. ft 1" timber planks

24 L. ft 2" x 1" battens

45 L. ft 2" x 2" ledgers

30 L. ft 4" x 2" bearers at bottom of mould

2 lbs. Wire nails

Labourer

1 ½ day carpenter

2 day u/sk

b) Assembling

Materials

110 L. ft 4"x 2" vertical props

80 L. ft 2" x 2" bracing to mould and props

50 L. ft 2" x 2" bracing to a set of props (10 uses)

6.0 sq. ft 1" timber base plate to props

22 Nos. wedges

Labourer and Sundries

1 day carpenter

2day u/sk

½ gal. Mould oil

½ lbs. nails

c) Dismantling cleaning

Labour

½ day carpenter

2 days u/sk

43. Sawn timber form work for under side of first floor slab

Consider a slab of dimensions 20'0" x 10'0" long .contact area = 2 sqrs.

a) Making panels

Materials

220 sq. ft 1" thick tongue and grooved timber planks

121 L. ft 4" x 2" runners at centers

4 lbs. Wire nails

Labourer

3 days carpenter

3 days u/sk

Add 20% for repairs

b) Assembling

Materials

690 L. ft 4"x 2" vertical props (10 uses)

66 L. ft 2" x 2" bracing for props

33 sq. ft 1" timber base plate to props

122 Nos. wedges

Add 20% of above for repairs

Labourer and Sundries

1 day carpenter

4days u/sk

1 gal. Mould oil

2 lbs. nails

c) Dismantling cleaning

Labour

½ day carpenter

2 days u/sk

7.0 STEEL REINFORCEMENT

44. Mild steel / for steel reinforcement to lintels, slab beam or columns bent to shape laid in position and tied with G.I. wire as directed.

Materials

1cwt M. S. / Tor steel rods including transport to site.

(Allow for wastage 15%)

1 ½ lbs. 16 bwg. Binding wire.

Add 1.5% of steel cost for spacers or chairs.

Labour

1 day blacksmith.

1 day u/sk.

Qt. for Steel

<u>Dia. (m)</u>	<u>wt. (kg/m)</u>
6	- 0.222
10	- 0.616
12	- 0.888
16	- 1.578
20	- 2.466
25	- 3.853

8.0 BRICKWORK

45. Brick work in cement sand 1:5 in foundation up to D. P. C.(Damp Proof Coat)

Per cube

Materials

1450 bricks.

Add 5% wastage.

4.00 cwt. cement (50 kg. Bags)

0.25 cubes sand.

Water (150 gals)

Labour

3days mason.

4days u/sk.

46. Brick work in cement & sand 1:8 in foundation up to D. P. C.

Per cube

Materials

1450 bricks.

Add 5% wastage.

2 1/3 cwt cement (50 kg. Bags)

3/8 cubes sand.

Water (150 gals)

Labour

3days mason.

4days u/sk.

47. Brick work in cement sand 1:5 in 4 1/2" thick walls in ground floor.

Per square

Materials

550 bricks.

Add 5% wastage.

1.30 cwt cement (50 kg. Bags)

0.10 cubes sand.

Water (150 gals)

Scaffolding – Add 5%.

Labour

1 1/2 days mason.

2days u/sk.

48. 9" thick brick wall cement sand 1:5 in ground floor.

Per square

Materials

1090 bricks.
Add 5% for wastage.
3.00 cwt cement (50 kg. Bags)
0.20 cubes sand.
Water (115 gals)
Scaffolding – Add 3%.

Labour

2 ½ days mason.
3 ¾ days u/sk.

49. Brick work 13 ½ thick in cement sand 1:5 in super structure in ground floor.

Per square

Materials

1630 bricks.
Add 5% wastage.
4.5 cwt. cement (50 kg. Bags)
0.30 cubes sand.
Water (170 gals)
Scaffolding – Add 2%.

Labour

3 ½ days mason.
5 ½ days u/sk.

50. 9" brick walls in cement sand 1:8 in super structure in ground floor.

Per square (i. e. 0.75 cubes)

Materials

1090 bricks.
Add 5% wastage.
1.75 cwt cement (50 kg. Bags)
0.30 cubes sand.
Water (115 gals)
Scaffolding – Add 3%.

Labour

2 ¼ days mason.
3 days u/sk.

51. 4 ½ thick brick wall (wire cut) in cement and sand 1:5 in ground floor.

(Facing to brick work measured separately)

Per square

Materials

550 wire cut bricks.
 Add 2% for wastage.
 1.20 cwt. cement (50 kg. Bags)
 0.08 cubes sand.
 Water (30 gals)
 Scaffolding – Add 5%.

Labour

1 ½ days mason.
 2 days u/sk.

52. 9" thick in cement and sand 1:5 with wire cut bricks.

(Facing to brick work measured separately)

Per square**Materials**

1050 wire cut bricks.
 Add 4% wastage.
 2.50 cwt. cement (50 kg. Bags)
 0.18 cubes sand.
 Water (100 gals)
 Scaffolding – Add 3%.

Labour

2 ¼ days mason.
 3 ¾ days u/sk.

53. 13 ½" thick brick wall (wire cut) in cement and sand 1:5 in ground floor.

(Facing to brick work measured separately)

Per square**Materials**

1630 wire cut bricks.
 Add 2% for wastage.
 4.50 cwt. cement (50 kg. Bags)
 0.30 cubes sand.
 Water (50 gals)
 Scaffolding – Add 2%.

Labour

3 ¾ days mason.
 5 ½ days u/sk.

54. Extra over for facing including raised pointing 1/8" thick in cement sand 1:1 mixture in ground floor.

Per square

Materials

0.50 cwt cement (50 kg. Bags)
 1.00 cu. ft. sand.
 1/10 gals. Acid.
 Water (10 gals)

Labour

5 days mason.
 3 1/2 days u/sk.

55. 3" thick floor paved in lime mortar 2:5 in ground floor.

Per square

Materials

350 bricks.
 1.20 cwt. slaked lime.
 0.11 cubes sand.
 Water (45 gals)

Labour

1 1/4 days mason.
 2 1/2 days u/sk.

56. Steps 1' - 1 1/2" x 0' - 6" in brick in cement sand 1:5 with 1/2" thick cement and sand 1:2 rendering including necessary excavation.

Per 10 L. ft.

Materials

120 bricks.
 0.50 cwt. cement (50 kg. Bags)
 0.05 cubes sand.
 Water (15 gals)

Labour

1/2 days mason.
 1/2 days u/sk.

57. Brick drains in cement sand 1:5, 9" wide and 6" - 9" average depth including cement rendering 1/2" thick 1:2 to exposed faces with 1' 6" ramp including necessary excavation.

Per 10 l. ft.

Materials

140 bricks.
 0.80 cwt. cement (50 kg. Bags)
 0.05 cubes sand.

Water (20 gals)

Labour

1 ¼ days mason.

1 ¼ days u/sk.

58. **Brick drains in cement sand 1:5 , 9" wide and 6" – 9" average depth including cement rendering ½" thick 1:2 to exposed faces without ramp including necessary excavation.**

Per 10 L. ft.

Materials

110 bricks.

0.70 cwt. cement (50 kg. Bags)

0.04 cubes sand.

Water (15 gals)

Labour

1 days mason.

1 ¼ days u/sk.

9.0 HOLLOW BLOCK MASONRY

59. 8" thick hollow block work in cement sand mortar 1:5 in ground floor.
(cavities unfilled)

Per square

10' 0" x 10' 0" area (size of each block 16" x 8" x 8")

Materials

112 hollow cement blocks.

Allow 5% for wastage.

0.75 cwt. cement (50 kg. Bags)

0.06 cubes sand.

Scaffolding – Add 3%.

Labour

1 ½ days mason.

2 ½ days u/sk.

60. 4" thick hollow block masonry in cement sand mortar 1:5 with cavities unfilled.

Per square

10' 0" x 10' 0" area (size of each block 16" x 8" x 4")

Materials

112 hollow cement blocks.

Allow 5% for wastage.

0.40 cwt cement (50 kg. Bags)

0.03 cubes sand.

Scaffolding – Add 5%.

Labour

1 days mason.

2 days u/sk.

10.0 RANDOM RUBBLE MASONRY

61. Random rubble masonry in cement mortar 1:5 in foundation.

Per cube (14" thick)

Materials

1.30 cubes 6" – 9" rubble.
5.00 cwt. cement (50 kg. Bags)
0.30 cubes sand.
Water 100 gals.

Labour

4 days mason.
6 days u/sk.

62. Random rubble masonry in cement mortar 1:5 in super structure.

Per cube (14" thick)

Materials

1.30 cubes 6" – 9" rubble.
5.00 cwt. cement (50 kg. Bags)
0.30 cubes sand.
Water 100 gals.
Scaffolding – Add 3%.

Labour

4 ½ days mason.
7days u/sk.

11.0 PRESSED TILLING

63. Pressed floor tiles bedded in $\frac{1}{2}$ " cement mortar 1:2 and pointing in neat cement in ground floor.

Per square

Materials

225 pressed tile 8" x 8"

Add 5% for wastage.

1 $\frac{1}{4}$ cwt. cement (50 kg. Bags)

.07 cubes sand.

$\frac{1}{4}$ lb. wax polish.

$\frac{1}{4}$ lb. colored pigment.

2 lbs. cotton waste.

Labour

4 days mason.

4 days u/sk.

$\frac{1}{2}$ day u/sk labourer for polishing.

12.0 WALL TILLING & TERRAZO TILES

64. Glazed tiles fixed to walls including bedding in cement mortar 1:2 and raking in ground floor. (Specials measured separately)

Per square

Materials

400 glazed tiles 6" x 6"

Add 10% for wastage on cutting.

2 ½ cwt. cement saed.(50 kg. Bags)

0.11 cubes sand.

1 lb. White cement.

Labour

4 days mason.

4days u/sk.

¼ day u/sk labourer for cleaning.

65. Terrazzo floor tiles on ½" thick cement and sand 1:2 in ground floor.

Per square

Materials

100 12" x 12" terrazzo tiles.

Colored pigment (2 lbs.)

Add 5% for wastage.

½ lb. wax polish.

1 ¼ cwt. cement (50 kg. Bags)

2 lb. cotton waste.

0.07 cubes sand.

Labour

4 days mason.

3days u/sk.

½ day u/sk labourer for polishing.

13.0 ROOFING

66. Timber frame work for calicut pattern tile hip roof in single story building consisting of wall plate, beam, ridge plate, rafters etc. (Preservative treatment to be measured separately)

Per 6.00 squares

Materials

34.00cu. ft. timber.

Add 10% for wastage.

660l. ft. 2" x 1" reefers.

Add 5% wastage.

8 lbs. Wire nail 6" long.

2 lbs. Wire nails 2" long.

Labour

2 days carpenter.

8days u/sk.

67. Roof covering with calicut pattern clay tiles in single storeyed building.

(Timber frame work & ridge covering measured separately)

Per 6.00 squares

Materials

750 tiles.

Labour

3 days carpenter.

3 days u/sk.

68. Timber frame work for corrugated asbestos sheet roof in single storeyed building.

Per 3.60 squares

Materials

13 ½cu. ft. timber purlins.

Add 10% for wastage.

Labour

2 ½ days carpenter.

3days u/sk.

69. Roof covering with corrugated asbestos sheet (Timber frame work and ridge covering measured separately)

Per 3.60 squares

Materials

420sq. ft. asbestos corrugated sheet.

72 Nos. roofing screws and washers.

Labour

1 days carpenter.

2days u/sk.

70. One layer half round clay tiles over corrugated asbestos roof covering.

Per square

Materials

650 half round clay tiles.

Labour

2days u/sk.

71. Asbestos close fittings ridging fixed complete with roof screws or bolts (hook)

Per 13' 4" length

Materials

4 pairs ridge 3' 8" long.

16 roofing screw or bolts.

Labour

¼ days carpenter.

¼ days u/sk.

72. Ridging covering with calicut pattern ridge tiles bedded in cement lime mortar 1:1:4.

Per 12 L ft. ridging.

Materials

9 ridge tiles.

1/3 cwt. cement. (50 kg. Bags)

0.02 cubes sand.

15 lbs. Slaked lime.

½ lb. Coloring powder.

Labour

¼ days mason.

¼ days u/sk.

73. ¾" x 9" high valance board fixed with brass screws to ends of rafters. (for tile roofing)

Per 100 L.ft.

Materials

75.00 sq.ft. 1" planks.

Add 5% for wastage.

70 Nos. 1 ½" brass screws.

Labour

3 days carpenter.

3days u/sk.

Scaffolding – Add 5%.

74. 3/4" x 9" high barge board fixed with brass screws at 2' 0" centers to side of rafters.

Per 100 L.ft.

Materials

75.00 sq. ft. 1" thick planks.

Add 5% for wastage.

50 Nos. 1 1/2" brass screws.

Labour

3 days carpenter.

3 days u/sk.

Scaffolding - Add 5%.

14.0 ROOF PLUMBING

75. Roof plumbing.

18 B. W. G. (1.2mm) galvanized iron sheet valley gutter 3' 0" girth over all once bent with end laps not less than 9" width including 3/4" tongued and grooved planks laid to slope and profile on timber members.

Consider 15' 0"

Materials

2 G. I. sheet (8' x 4')	1.00cu.ft. sand.
1/4 gals. Wood preservative.	50.00sq.ft. planks.
0.10 cwt. slaked lime.	2lbs. 1 1/2" wire nails.

Labour

- Fixing boarding and applying wood preservative – 1 day carpenter, 1 day u/sk.
- Making and fixing G. I. sheet – 1/2 day tinker, 1/2 day u/sk.
- Building sides – 1/4 day mason, 1/2 day u/sk.

76. Roof plumbing.

18 B. W. G. (1.2mm) galvanized iron flashing 1' 6" girth over all 3 times bent with end laps not less than 6" lead soldered, turned and tucked up to not less than 6" into chase cut in wall and pointed in cement mortar 1:2 lower end dressed over roof covering not less than 1' 0" wide.

Consider 15' 0" L.ft.

Materials

1 G. I. sheet 8' 0" x 4' 0"	1.00cu.ft. sand.
0.05 cwt. cement (50 kg. Bags)	1 lbs. Soldering lead.

Labour

Cutting bending, soldering & fixing – 1/2 day tinker, 1/8 day mason, 3/4 day u/sk.

15.0 CEILING

77. Timber frame work for 4' 0" x 4' 0" flat asbestos ceiling (sheet measured separately) Comprising of 4" x 2" joists and 2" x 2" bearers in class 1 timber.

Per 1.95 square

Materials

8.00cu. ft. timber class I.
1 lb. 2" nails.
26 Nos. fiber / plastic plugs.
25 lbs. Cement.
2.00cu.ft. sand.
2" brush - ¼ use.
1/3gals. Tarnap.

Labour

2 ½ days carpenter.
½ day mason.
1 ½ days u/sk.

78. Horizontal ceiling lining using 4' 0" x 4' 0" flat asbestos cement sheet fixed with and including beading and cove mouldings on timber frame work.
(Timber frame work & painting measured separately)

Per 1.95 square

Materials

210sq.ft. flat asbestos sheets.
60 L. ft. 2" x 2" Halmilla cove mouldings.
123 L. ft. 1 ½" x ½" Halmilla beadings.
(1/4 lb. - ½" about nails)
(8) doz. 1/1/2" brass screws.

Labour

1 ½ days carpenter.
2days u/sk.
Scaffolding - Add 3%.

79. $\frac{3}{4}$ " thick tongued and grooved Lunumidella ceiling boards fixed horizontal on 4" x 2" class I timber joists at 2' 0" centers with 1 $\frac{1}{2}$ " brass nails.

Consider room 15' 0" x 13' 0" i.e. 1.95 sqrs.

Materials

115 L. ft. 4" x 2" timber joists.

215sq.ft. 6" x $\frac{3}{4}$ " Lunumidella ceiling planks.

3lbs. Cement.

4.00cu.ft. sand.

4 kg. 1 $\frac{1}{2}$ " brass nails.

Labour

Making holes, fixing joists & making good ;

1day mason

1day carpenter

3 days u/sk.

Fixing ceiling boards

3days carpenter.

4days u/sk.

Scaffolding – Add 3%.

80. $\frac{3}{4}$ " x 6" wide tongued and grooved Lunumidella ceiling boards fixed to under side of roof rafters, (existing) with 1 $\frac{1}{2}$ " brass nails including level – ling with timber strips where necessary.

Consider room 15' 0" x 12' 0" = 1.80 squares.

Materials

220.00sq.ft. ceiling planks

40.00 L. ft. 2" x $\frac{1}{4}$ " timber strips.

2.00 kg. $\frac{3}{4}$ " nails.

4.00 kg. 1 $\frac{1}{2}$ " brass nails.

Labour

3days carpenter.

6day u/sk.

Scaffolding – Add 3%.

16.0 DOORS & WINDOWS

81. Door single hung 3' 3" x 7' 0" high over all with frame having 1 1/4" thick sash and 3 3/4" x 2 3/4" timber frame. (glazing, ironmongery & painting measured separately)

Per 22.75 square feet (3' 3" x 7' 0")

Materials

Frame - 1 1/2 cu. Ft. 4" x 3" timber.

2 No. spur stones.

6 No. fibre / plastic plug, with 4" long brass screws.

2 No. 5/8" mild steel dowels 4" long.

Sash - 14 sq.ft. 1 1/2" planks.

5 sq.ft. 1" planks.

Labour

5 days carpenter.

1 1/2 days u/sk.

82. Door glazed and paneled double hung 4' 0" x 7' 0" high over all with frame including 1 1/4" thick sash and 3 3/4" x 2 3/4" frame. (glazing, ironmongery & painting measured separately)

Per 28.00 square feet (4' 0" x 7' 0")

Materials

Frame - 1 2/3 cu. Ft. 4" x 3" timber.

2 No. spur stones.

6 No. fibre / plastic plug, with 4" long brass screws.

2 No. 5/8" mild steel dowels 4" long.

Sash - 16 sq.ft. 1 1/2" planks.

7 sq.ft. 1" planks.

Labour

6 days carpenter.

2 days u/sk.

83. Plywood door single hung 3' 1 1/2" x 6' 11 1/2" over all with frame having 1 1/4" thick sash and 3 3/4" x 2 3/4" frame. (ironmongery & painting measured separately)

Per 21.75 square feet (3' 1 1/2" x 6' 11 1/2")

Materials

Frame -1.80 cu. Ft. 4" x 3" timber.

2 No. spur stones.

6 No. fibre / plastic plug, with 4" long brass screws.

Sash - 1 No. 6' 9" x 2' 9" plywood sash.

Labour

3/4 days carpenter.

1/4 day mason.

3/8 days u/sk.

1/4 day u/sk.

84. Door ledged, braced and battened single hung 2' 6" x 6' 6" over all with frame having 7/8" thick tongued & grooved planks and 3 3/4" x 2 3/4" frame. (ironmongery & painting measured separately)

Per 16.25 square feet (2' 6" x 6' 6")

Materials

Frame -1.70 cu. Ft. 4" x 3" timber.

2 No. spur stones.

6 No. fibre / plastic plug, with 4" long brass screws.

2 No. 5/8" mild steel dowels 4" long.

Sash - 21.00 sq.ft. 1" thick planks.

3 doz. 1 1/4" long brass screws.

Labour

2 1/4 days carpenter.

1/4 day mason.(fixing frame)

1 days u/sk.

1/4 day u/sk.

85. Window, glazed 7' 0" x 4' 0" high over all with frame comprising 3 No. openable sashes and 3 3/4" x 2 3/4" frame and mullions. (glazing, ironmongery & painting measured separately)

Per window 7' 0" x 4' 0" (sashes) ie. Per 28.00sq.ft.

Materials

Frame - 3.20 cu. Ft. 4" x 3" timber.

4 No. fibre / plastic plug, with 4" long brass screws.

Sash - 9.25 sq.ft. 3" x 1 1/2" timber.

Labour

6 days carpenter.

1/2 day mason. (fixing frame)

2 1/2 days u/sk.

1/2 day u/sk.

86. 1/8" clear sheet glass panes exceeding 1' 0" but not exceeding 4 square feet cut and fixed with timber beading to doors and windows.

Consider sash 3' 0" x 4' 0" high with 3" x 1 1/4" style and 4 Nos. glass panes.

Per 9.00 square feet.

Materials

9.00 sq.ft. glass panes.

30 L.ft. 1/2" x 1/2" beading.

4 doz. brass panel pine.

Labour

1/2 day glazier.

1/2 days u/sk.

17.0 IRONMONGERY

87. Butt Hinges 5" X 2 1/2".

Materials

- 1 1/2 pairs butt hinges.
- 2 Doz. 3/4" brass screws.

Labour

- 1/4 day carpenter.
- 1/2 days u/sk.

88. Tee hinges 6" x 12"

Materials

- 1 1/2 pairs tee hinges.
- 1 1/2 Doz 3/4" brass screws.

Labour

- 2 hours carpenter.
- 2 hours u/sk.

89. Rim lock.

Materials

- 1 rim lock with screws.

Labour

- 2 hours carpenter.
- 2 hours u/sk.

90. Mortice lock.

Materials

- 1 mortice lock with screws.

Labour

- 1/2 day carpenter.
- 1/2 day u/sk.

91. Casement stays.

Materials

- 4 casement stays.
- 16 - 1/2" brass screws.

Labour

- 2 hours carpenter.
- 2 hours u/sk.

92. Door closer. (hydraulic)

Materials

- 1 door closer.
- 8 - 3/4" brass screws.

Labour

- 2 hours carpenter.
- 2 hours u/sk.

93. Tower / skeleton brass bolts.

Materials

1 tower / skeleton bolt.
10 - 1/2" brass screws.

Labour

1/2 hours carpenter.
1/2 hours u/sk.

94. Barrel bolt 4".

Materials

1 barrel bolt.
8 - 1/2" brass screws.

Labour

1/2 hours carpenter.
1/2 hours u/sk.

95. Casement fasteners.

Materials

6 casement fasteners.
24 - 1/2" brass screws.

Labour

1/2 day carpenter.
1/2 u/sk.

96. Spring loaded fanlight catches.

Materials

6 brass fanlight catches.
2 Doz. 1/2" brass screws.

Labour

1/2 day carpenter.
1/2 day u/sk.

97. Draw rings.

Materials

6 draw rings.
1 doz. 1/2" brass screws.

Labour

1 hr. carpenter.
1 hr. u/sk.

18.0 PLASTERING

98. 3/4" thick DPC, in cement sand 1:2 finished with 2 coats hot tar and blinded with sand.

Per square

Materials

2.25 cwt. cement.

0.11 cube sand.

1 1/2 gals. Bitumen.

Fire wood (10 lbs.)

Water 10 gals.

Labour

1 1/4 days mason.

2 1/2 days u/sk.

99. 5/8" thick plastering to wall in lime and sand 2:5 including floating with lime putty.

Per square

Materials

1.30 cwt. slaked lime.

0.07 cube sand.

Water 10 gals.

Scaffolding - Add 3%.

Labour

1 days mason.

1 3/4 days u/sk.

100. 5/8" thick plastering to wall in cement and sand 1:3 including cement floating.

Per square

Materials

1.40 cwt. cement (50 kg. Bags)

0.06 cube sand.

Water 10 gals.

Scaffolding - Add 3%.

Labour

1 days mason.

1 1/2 days u/sk.

101. 3/8" thick plastering to soffit slab in cement and sand 1:3 including floating with lime putty.

Per square

Materials

0.80 cwt. cement (50 kg. Bags)
 0.16 cwt. slaked lime.
 0.05 cube sand.
 Water 5 gals.
 Scaffolding – Add 3%.

Labour

2 ½ days mason.
 2 ½ days u/sk.

102. 3/8" thick plastering to sides and soffit of beams in cement and sand 1:3 including floating with lime putty.

Materials

0.80 cwt. cement (50 kg. Bags)
 0.16 cwt. slaked lime.
 0.03 cube sand.
 Water 5 gals.
 Scaffolding – Add 3%.

Labour

2 days mason.
 2 days u/sk.

103. 5/8" thick wall in lime cement and sand 1:1:5 finished semi – rough with wooden float.

Per square

Materials

0.80 cwt. cement (50 kg. Bags) 2 280
 0.40 cwt. slaked lime. @ 500 128
 0.07 cubes sand. @ 150 105
 Water 10 gals.
 Scaffolding – Add 3%.

Labour

1 day mason. 500 00
 1 ¼ days u/sk. 150 00
 513
 1485 00
 1499 00

104. 1/2" thick plastering to soffit of beams in cement and sand 1:3 including floating with lime putty.

104. 5/8" thick plastering to wall in lime cement and sand 1:1:5 finished smooth with lime putty floating.

Per square

Materials

0.80 cwt. cement (50 kg. Bags)

0.07 cube sand.

0.60 cwt. slaked lime.

Water 10 gals.

Labour

1 ½ days mason.

1 ½ days u/sk.

Scaffolding – Add 3%.

105. ½" thick rendering in cement and sand 1:3 finished smooth.

Per square

Materials

1.07 cwt. cement (50 kg. Bags)

0.05 cube sand.

Water 10 gals.

Scaffolding – Add 3%.

Labour

1 day mason.

1 ½ days u/sk.(curing)

106. ½" thick rendering in cement and sand 1:2 in floor, finished smooth.

Per square

Materials

1.50 cwt. cement (50 kg. Bags)

0.05 cube sand.

Water 10 gals.

Labour

1 day mason.

1 ½ days u/sk.

¼ day u/sk. (curing)

107. ¾" thick rendering in cement and sand 1:3 finished smooth.

Per square

Materials

1.75 cwt. cement (50 kg. Bags)

0.08 cube sand.

Water 10 gals.

Labour

1 ¼ days mason.

2 days u/sk.

¼ day u/sk (curing)

108. $\frac{3}{4}$ " thick rendering in cement and sand 1:2 in floor finished smooth.

Per square

Materials

2.25 cwt. cement (50 kg. Bags)

0.08 cube sand.

Water 10 gals.

Labour

1 $\frac{1}{4}$ days mason.

2 days u/sk.

$\frac{1}{4}$ day u/sk (curing)

109. $\frac{3}{4}$ " thick rendering in cement and sand 1:2 in coloured cement floors finished smooth.

Per square

Materials

2.25 cwt. cement (50 kg. Bags)

0.08 cube sand.

5 lbs. Powdered pigment.

Water 10 gals.

Labour

1 $\frac{1}{4}$ days mason.

2 days u/sk.

$\frac{1}{4}$ day u/sk (curing)

110. $\frac{1}{2}$ " x 6"-skirting in cement and sand 1:3 projected or flush to walls finished with floating including forming groove.

Per 10 L.ft.

Materials

0.10 cwt. cement (50 kg. Bags)

0.003 cube sand.

0.25 lbs. Powdered pigment.

Labour

$\frac{3}{8}$ day mason.

$\frac{5}{16}$ days u/sk.

Note

where coloured skirting is not required, delete provision for powdered pigment.

19.0 PAINTING & DECORATING

111. Prepare and apply one coat of preservation (oil type) to structural timber including touching up cut ends etc. after fixing.

Per one square

Materials

2.75 ltr. Wood preservative (oil type)
3" brush (1/10 use)

Labour

¾ day painter.
½ day u/sk

112. Prepare surface of steel truss and apply two coats of anticorrosive primer.

Consider one square

Materials

2 ¼ ltr. Anti – corrosive primer.
0.15 ltr. Mineral turpentine or thinner.
1 wire brush.
2" brush. (1/8 use)

Labour

1 ½ day painter.
1 ½ day u/sk.

113. Apply one coats of anticorrosive primer and two coats enamel paint on already shop primed and erected steel roof truss.

Consider one square

Materials

0.20 ltr. Anti – corrosive primer.
1 1/3 ltr. Enamel paint.
0.20 ltr. Mineral turpentine or thinner.
2" brush. (1/5 use)
Scaffolding – Add 3%.

Labour

2 ½ day painter.
1 day u/sk.

114. Prepare and apply two coats primer and finishing coat of enamel paint to mild steel (angle / flat) gate.

Consider 50 sq.ft.

Materials

1 ½ ltr. Anti – corrosive primer.
2/3 ltr. Enamel paint.
0.20 ltr. Mineral turpentine or thinner.

1 wire brush. (1/2 use)
2" brush. (1/5 use)

Labour

½ day painter.

¾ day u/sk.

115. Painting steel on new work with 2 coats of anti corrosive paint.

Per square

Materials

2/3 ltr. Anti – corrosive primer.

2" brush. (1/5 use)

Labour

1 ½ day painter.

116. Painting new timber work with two coats wood preservative.

Per square

Materials

½ gal. Wood preservative.

2" brush. (1/5 use)

Labour

½ day painter.

117. Preparing and painting wood work with primer and 2 coats enamel paint.

Per square

Materials

¾ ltr. Primer.

2.5 ltr. Enamel paint (2 coats)

2" brush. (1/10 use)

2 sand papers.

Labour

1 ½ day painter.

½ day u/sk.

118. White or colour washing two coats in single storey.

Per 10 squares

Materials

0.50 cwt. boiled lime.

2 lbs. Salt.

½ lb. yellow ochre.

2 oz. blue.

6" brush (1/3 use)

water 10 gals.

Labour

2 ½ days painter.

2 ½ days u/sk.

Scaffolding – Add 3%.

119. White or colour washing in two storeyed building.

Per 10 squares

(As per above)

add ½ day painter,

½ day u/sk.

Scaffolding – Add 3%.

120. Prepare and apply one coat of Alkali resistant primer and two coats of emulsion paint to walls.

Per square

Materials

Primer 0.90 ltr. Primer.

1.40 ltr. Emulsion paint.

Water 0.10 gals.

6" brush (1/10 use)

2 sand papers.

Labour

1 ¼ day painter.

Scaffolding – Add 3%.

121. Cement washing to walls of single storeyed building coats.

Per 10 squares

Materials

5/8 cwt. cement.

1 – 6" coir brush.

Water 5 gals.

Scaffolding – Add 3%.

Labour

2 days painter.

2 days u/sk.

122. Painting walls with emulsion paint. (2 coats)

Per square

1st coat – 1/6 gal. Emulsion paint.

2nd coat – 1/7 gal. Emulsion paint.

Labour

¾ day painter.

Scaffolding – Add 3%.

6" brush – (1/10 use)

0.10 gals. Water.

123. Prepare and apply one coat alkali resistant primer and two coats of emulsion paint to soffit of slabs.

Consider 1.00 sqrs.

Materials

0.90 ltr. Primer.
1.50 ltr. Emulsion paint.
6" brush (1/10 use)
Scaffolding – Add 3%.

Labour

1 ¾ days painter.

124. Varnishing two coats with copal varnish after sand papering.

Per square

Materials

0.40 gals. (1.80 ltr.) varnish.
3" brush (1/3 use)

Labour

½ day painter.

½ day u/sk.

For varnished layer - 1d - 14-18 m²

125. Wax polishing to timber in panels & floors.

Per square

Materials

¾ lb. Wax polish.
½ doz. Sheets sand paper.
1/10 floor brush.
½ yards flannel cloth.

Labour

3hrs. u/sk.

20.0 PLUMBING – PVC PIPES

126. ½" diameter PVC pipes fixed to walls. (specials paid separately)

Per 10 l. ft.

Materials

13 L. ft. pipes.
3 clips and nails.
2 grams. solvent cement.

Labour

1 hr. plumber.
1 hr. u/sk.

127. ¾" diameter PVC pipes to wall. (specials paid separately)

Per 10 L. ft.

Materials

13 L. ft. pipes.
3 clips and nails.
3grms. solvent cement.

Labour

1hr. plumber.
1hr. u/sk.

128. 1" diameter PVC pipes fixed to wall. (specials paid separately)

Per 100. ft.

Materials

100 L. ft. pipes.
Add 5% for wastage.
8 – 1" dia. sockets.
32grms. solvent cement.
35 clips and nails.

Labour

½ day plumber.
½ day u/sk.

129. 1 ¼" diameter PVC pipes fixed to wall. (specials paid separately)

Per 100. ft.

Materials

100 L. ft. pipes.
Add 5% for wastage.
8 – 1 ¼" dia. sockets.
48grms. solvent cement.
35 clips and nails.

Labour

¾ day plumber.
¾ day u/sk.

130. 1 ½" diameter PVC pipes laid to wall. (specials paid separately)

Per 100. ft.

Materials

100 L. ft. pipes.
Add 5% for wastage.
8 – 1 ½" dia. sockets.
64grms. solvent cement.
35 clips and nails.

Labour

¾ day plumber.
¾ day u/sk.

131. 2" diameter PVC pipes laid to wall (specials paid separately)

Per 100 L.ft.

Materials

100 L. ft. pipes.
Add 5% for wastage.
8 – 2" dia. Sockets.
35 clips and nails.
112 grms. Solvent cement.

Labour

¾ day plumber.
¾ day u/sk labourer.

132. 3" diameter PVC pipes fixed to walls (specials paid separately)

Per 100 L. ft.

Materials

100 L. ft. pipe.
Add 5% for wastage.
8 – 3" sockets.
200 gms. Solvent cement.
35 clips and screws.

Labour

1 day plumber.
1 day u/sk labourer.

133. Excavation for laying ½" to 3" diameter PVC pipes in ground not less than 1' – 6" deep, back filling & compacting.

Per 100 L. ft.

Labour

2 ¼ days u/sk labourer.

134. Chasing brickwork for laying ½” to 1 ½” dia. PVC pipes and making good average depth 2” – (pipes and specials paid separately)

Per 100 L. ft.

Materials

0.10 cwt. cement.

0.01 cubes sand.

Labour

3 days mason.

3 days u/sk labourer.

135. Chasing brickwork for laying 1 ½” to 3” dia. PVC pipes in ground or floor and making good, average depth 3”. (Pipes & specials measured separately)

Per 100 L.ft.

Materials

0.20 cwt. cement.

0.03 cubes sand.

Labour

3 ½ days masons.

3 ½ days u/sk labourer.

136. ½” dia. PVC specials viz. – elbows / bends / sockets.

Per 10 specials.

Materials

10 – ½” elbows / bends / sockets.

20 grms. Solvent cement.

Labour

1 hour plumber.

137. ¾” dia. PVC specials viz elbows / bend / sockets.

Per 10 specials

Materials

10 – ¾” dia. Elbows / bend / sockets.

30 grms. Solvent cement.

Labour

2hrs. plumber.

138. 1” dia. PVC specials viz – elbows / bends / sockets.

Per 10 specials

Materials

10 – 1” dia. Elbows / bend / sockets.

40 grms. Solvent cement.

Labour

2hrs. plumber.

139. 1¼" dia. PVC specials viz – elbows / bends / sockets.

Per 10 specials

Materials

10 no. 1 ¼" dia. elbows / bends / sockets.

60 grms. Solvent cement.

Labour

2hours plumber.

140. 1½" dia. PVC specials viz – elbows / bends / sockets.

Per 10 specials.

Materials

10 – 1 ½" dia. elbows / bends / sockets.

80 grms. solvent cement.

Labour

½ day plumber.

141. 2" dia. specials viz elbows / bends / sockets.

Per 10 specials

Materials

10 – 2" dia. – elbows / bends / sockets.

140 grms. – solvent cement.

Labour

½ day plumber.

142. 2½" dia. PVC specials viz – elbows / bends / sockets.

Per 10 specials

Materials

10 – 2 ½" dia. elbows / bends / sockets.

200 grms. solvent cement.

Labour

½ day plumber.

143. 3" dia. PVC specials viz – elbows / bends / sockets.

Per 10 specials

Materials

10 – 3" dia. elbows / bends / sockets.

260 grms. solvent cement.

Labour

½ day plumber.

144. ½" dia. PVC specials viz . Tees.

Per 10 Tees.

Materials

10 – ½" Tees.

30 grms. solvent cement.

Labour

½ day plumber.

145. 3/4" dia. PVC specials viz – Tees.

Per 10 Tees

Materials

10 no. 3/4" dia. tee.
45 grms. solvent cement.

Labour

1/2 day plumber.

146. 1" dia. PVC specials viz – Tees.

Per 10 Tees

Materials

10 – 1" dia. Tees.
60 grms. solvent cement.

Labour

1/2 day plumber.

147. 1 1/4" dia. PVC specials viz – Tees.

Per 10 Tees

Materials

10 – 1 1/4" dia. Tees.
90 grms. solvent cement.

Labour

1/2 day plumber.

148. 1 1/2" dia. PVC specials viz – Tees.

Per 10 Tees

Materials

10 – 1 1/2" dia Tees.
120 grms. solvent cement.

Labour

1 day plumber.

149. 2" dia. PVC specials viz Tees.

Per 10 Tees.

Materials

10 – 2" dia. Tees.
210 grms solvent cement.

Labour

1 day plumber.

150. 2½" dia. PVC specials viz Tees.

Per 10 Tees

Materials

10 – 2 ½" dia. Tees.

300 grms. solvent cement.

Labour

1½ days plumber.

151. 3" dia. PVC specials viz Tees.

Per 10 Tees.

Materials

10 – 3" dia. Tees.

360 grms. solvent cement.

Labour

1½ days plumber.

21.0 EXTERNAL DRAINAGE (EW PIPES)

152. 4" dia. glazed earthenware pipes laid on 6" thick bedding in cement concrete 1:3:6 (1 ½") including excavation average 2' 0" depth back-filling with selected excavated materials and concrete haunching to joints.

Per 100 L. ft.

Materials

50 – 4" dia. EW. Pipes.

0.75 cubes cement concrete – 1:3:6 (1 ½")

2lbs yarn.

0.50 cwt. cement (jointing)

4.00 cubes excavation.

Labour

Laying concrete bedding – 1 ½ days u/sk labourer.

Laying and testing pipes – 2 days plumber.

2days plumber.

2days u/sk labour.

Back-filling – 2 ½ days u/sk labourer.

22.0 PLUMBING (GI PIPES)

153. 4" dia. C. I. Soil / vent pipe fixed vertically to walls joined with cement caulking. (specials measured separately)

Per 6' 0" length

Materials

6' 0" L. ft. 4" dia C. I. Pipe

Add 10% for wastage.

5/16 lbs. yarn.

1 – timber plug 6" x 6" x 2".

2 – 3" iron screws.

2 lbs. cement.

Scaffolding – Add 5%.

Labour

¼ day plumber

¼ day u/sk labourer.

154. 4" dia. C. I. Pipes fixed to walls joined with lead caulking.(specials measured separately)

Per 6' 0" length

Materials

6' 0" L. ft. 4" dia. C. I. Pipe.

(Add 10% wastage)

6 lbs. lead.

5/16 lbs. yarn.

1 wood plug 6" x 6" x 2".

2– 3" iron screws.

1/16 cwt. Firewood.

Add 10% for sundries in cement and sand.

Scaffolding – Add 5%.

Labour

¼ day plumber.

¼ day u/sk labourer.

23.0 MANHOLES & GULLEYS

155. 4" dia. stoneware gully with 6" x 6" x 6" gully box including excavation, 4" cement concrete 1:2:4 (3/4") base, surrounded by 4 ½ thick cement and sand 1:5 extended 6" above top of gully box including making connection, ½" cement and sand 1:2 rendering internally and exposed faces, finished smooth with neat cement floating and providing G. I. Grating on top of gully.

Per No.

Materials

1 – 4" s.w. gully.
4.00 cu.ft excavation.
5.50 sq.ft. 4 ½" brickwork.
0.80 cu.ft. cement concrete 1:2:4 (3/4")
1.00sq.ft. ½" cement rendering 1:2.
1 – 4" G. I. Grating.

Labour

½ day mason.
½ day u/sk labourer.

156. Manhole 2'0" x 2'0" internally with invent depth not exceeding 2'0" including excavation, back-filling 6" cement concrete 1:2:4 (3/4") base with 3/8 diameter mild steel rods at 4" centres both ways, forming channel and benching in similar concrete 1"5, ½" thick cement and sand 1:2 rendering internally and exposed surfaces including channels, benching and 2" thick RCC removable cover slab 2'3" x 2'3" inlet and outlet connection all complete to working order.

Materials

35.00 cu.ft excavation.
7.00 cu.ft. cement concrete.
1:2:4 (3/4") in base & channels.
33.00 sq.ft. 4 ½" brickwork in cement 1:5.
28.00 sq.ft. ½" cement rendering 1:2.
1 – RCC cover slab.

Labour

1 ½ days mason.
2 ½ days u/sk labourer.

24.0 SANITARY FITTINGS

157. 22" x 16" glazed fire-clay wash basin with ½" dia. Chromium plated pillar tap, waste plug, chromium plated waste chain and stay, including fixing wash basin on brackets.(water supply and waste water connection measured separately.)

Per No.

Materials

1 wash basin complete with brackets.

1 - ½" tap.

Waste plug and chain.

4 wooden plugs.

6 - 1 ½" brass screws.

2 lbs. cement.

Labour

½ day mason.

1 day u/sk labourer.

158. Sink 24" x 15" x 7" overall vitreous china with rubber plug and Chromium plated chain waste-carried on iron brackets painted and fixed to walls. (water supply and waste water connection measured separately)

Per No.

Materials

1 sink 24" x 15" x 7".

2 L iron brackets.

2 lbs. cement.

2 tapered wooden blocks 2" thick.

8 - 1 ½" dia. brass screws.

Labour

½ day mason.

½ day u/sk labourer.

159. Closet pedestal type with L/L flushing cistern, flush pipe double plastic seat cover, ½" dia. stop cock, trap supplied & fixed complete to working order.

Per No.

Materials

1 low level suite complete.

1 - ½ dia. stop cock.

2 lbs. cement.

¼ cu.ft. sand

2- 1 ½" brass screws.

Labour

¼ day mason.

1 day plumber.

1 day u/sk labourer.

160. Closet squatting type with trap including high level cistern fixed complete with flush pipe and ½" dia. stop cock, all complete to working order.

Per No.

Materials

1 squatting pan with trap.

2 gals. C. I. Cistern with 1 ¼" flush, pipe chain and overflow pipe.

1 clip.

5 wooden plugs.

1 doz. 1 ½" brass screws.

¼ cwt. Cement.

½ cu.ft. metal.

¼ cu.ft. sand.

1 - ½" stop cock.

Labour

½ day mason.

1 day plumber.

1 day u/sk labourer.

161. Vitreous china bidet suite fixed complete to working order.

Per No.

Materials

1 bidet.

Labour

1 day plumber.

1 day u/sk labourer.

162. 4No. Bowl type urinal with trap and 2 gals. Capacity automatic flushing cistern and spreaders complete to working orders.

Materials

4 urinal bowls.
1 - 2 gals. Cistern.
8 rawl plugs.
1 spreader.
4 wooden plugs (for cistern)
4 - 1 1/2" brass screws.
4 lbs. Cement.
1/8 cu.ft. sand.

Labour

1/4 day mason.
1 day plumber.
1 day u/sk labourer.

25.0 GUTTERS & DOWNPIPES

163. 6" dia. half round PVC eaves gutter fixed to timber valance board including gutter joiner and brackets, fixed at 18" centres. (Other specials paid separately.)

Consider 24.00 L. ft.

Materials

2-6" dia. eaves gutter lengths.
1 joiner.
17 gutter brackets.
34 - 3/4" brass screws.
20 grms. solvent cement
Scaffolding Add 5%.

Labour

1/2 day plumber.
1/2 day u/sk labourer.

164. 6" dia. PVC gutter head.

Consider 1 No. gutter head.

Materials

1 PVC gutter head.
2 gutter joiners.
2 gutter brackets.
12 grms. solvent cement.
4 - 3/4" brass screws.
Scaffolding - Add 5%.

Labour

1/8 day plumber.
1/8 day u/sk labourer.

165. 6" dia. PVC mitres.

Consider 1 No. Mitre.

Materials

1 mitre bend.
2 gutter joiners.
2 brackets.
12 grms. solvent cement.
4 - 3/4" brass screws.

Labour

1/8 day plumber.
1/8 day u/sk labourer.
Scaffolding - Add 5%.

166. 6" dia. PVC end caps.

Consider 1 No. end cap.

Materials

1 No. end cap.
12 grms. solvent cement.
Scaffolding – Add 5%.

Labour

1/16 day plumber.
1/16 day u/sk labourer.

167. 3½" dia. PVC rain water down pipes fixed to brick wall with wooden plugs buried in wall.(Specials measured separately)

Consider 24 L. ft. pipe length.

Materials

2– 3 ½" dia. pipe length.
1-3 ½" joiner.
4PVC straps.
8 brass screws 1" long.
30 grms solvent cement.
Scaffolding – Add 5%

Labour

1/3 day plumber.
1/3 day u/sk labourer.

168. 3½" dia. PVC elbow.

Materials

1-60° /80° elbows.
32 grms. solvent cement.
Scaffolding – Add 5%.

Labour

1/16 day plumber.
1/16 day u/sk labourer.

169. 3½" dia. PVC shoe.

Materials

1-60° / 80° shoe.
15 grms. solvent cement.

Labour

1/16 days plumber.
1/16 day u/sk labourer.

CONVERSION - IMPERIAL UNITS

TO CONVERT RATE PER.	TO RATE PER	MULTIPLY BY
Cube	m ³	0.353 ✓
Square	m ²	0.1075 ✓
Sq. ft	m ²	10.7584 ✓
L. ft	m	3.28 ✓
Cwt.	kg	0.02 ✓

Allowances to be made in the rates for lift in respect of work on upper floors.

In the analysis of the various items of work in the following pages the rates refer to work on the ground floor.

To these rates the percentages (of the ground floor rates) indicated in the table below should be added to obtain the rates applicable to the 1st, 2nd and 3rd floors. This B.S.R. is limited to work on the ground and 3 upper floors only.

	Ground to 1 st floor	Ground to 2 nd floor	Ground to 3 rd floor
Concrete (cube)	3%	5%	7%
9" brick work (sqr)	5%	7%	9%
9" brick work (cube)	5%	7%	10%
4 ½ " brick work (sqr.)	5%	7%	10%
Steel reinforcement (cwt.)	2 ½ %	5%	7 ½ %
Plastering (sqr)	5%	10%	15%
Painting (sqr)	3%	6%	9%
Floor tiling (sqr)	2%	4%	6%
Wall tiling (sqr)	2%	4%	6%
Roof calicut tiles (sqr)	3%	6%	9%
Roof asbestos (sqr)	3%	5%	7%
Ceiling work	3%	5%	7%