higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

NOVEMBER EXAMINATION

QUANTITY SURVEYING N5

24 NOVEMBER 2016

This marking guideline consists of 8 pages.

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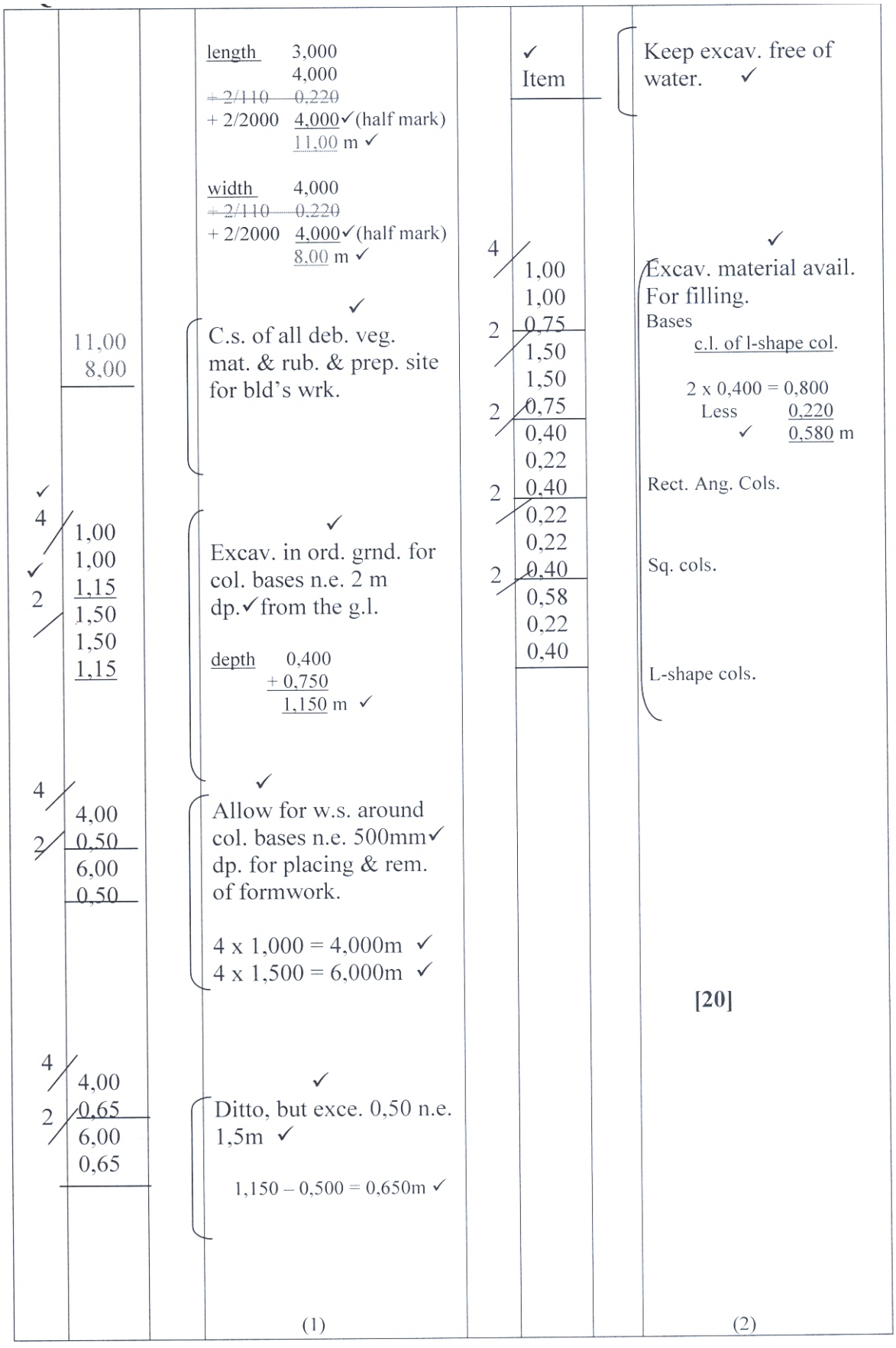
SECTION A

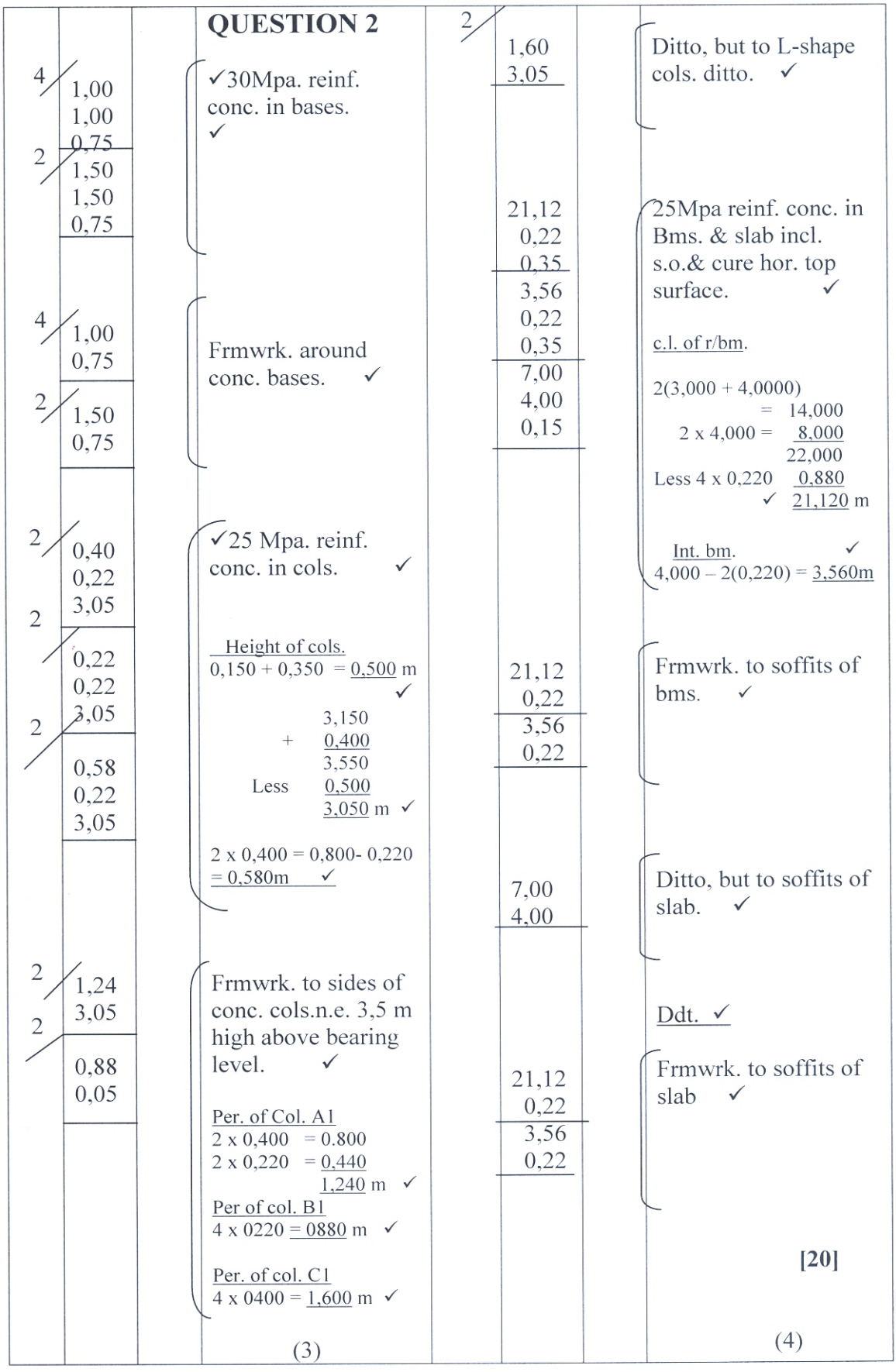
QUESTION 1



		length 3,000 4,000 ~~+ 2/110 0,220~~ + 2/2000 4,000✓(half mark) 11,00 m ✓	
		width 4,000 ~~+ 2/110 0,220~~ + 2/2000 4,000✓(half mark) 8,00 m ✓	
	11,00 8,00	✓ C.s. of all deb. veg. mat. & rub. & prep. site for bld's wrk.	
✓ 4	1,00 1,00		
✓ 2	1,15 1,50 1,50 1,15	✓ Excav. in ord. grnd. for col. bases n.e. 2 m dp.✓from the g.l.	
		depth 0,400 + 0,750 1,150 m ✓	
4	4,00	✓	
2	0,50 6,00 0,50	Allow for w.s. around col. bases n.e. 500mm✓ dp. for placing & rem. of formwork. 4 x 1,000 = 4,000m ✓ 4 x 1,500 = 6,000m ✓	
4	4,00	✓	
2	0,65 6,00 0,65	Ditto, but exce. 0,50 n.e. 1,5m ✓ 1,150 – 0,500 = 0,650m ✓	
		(1)	

		✓ Item	Keep excav. free of water. ✓
4	1,00 1,00		✓ Excav. material avail. For filling.
2	0,75 1,50 1,50		Bases c.l. of l-shape col.
2	0,75 0,40 0,22		2 x 0,400 = 0,800 Less 0,220 ✓ 0,580 m
2	0,40 0,22 0,22		Rect. Ang. Cols.
2	0,40 0,58 0,22 0,40		Sq. cols. L-shape cols.
			[20]
			(2)

QUESTION 2



QUESTION 2

4 / 1,00 / 1,00 / 0,75
2 / 1,50 / 1,50 / 0,75

✓30Mpa. reinf. conc. in bases. ✓

4 / 1,00 / 0,75
2 / 1,50 / 0,75

Frmwrk. around conc. bases. ✓

2 / 0,40 / 0,22 / 3,05
2 / 0,22 / 0,22 / 3,05
2 / 0,58 / 0,22 / 3,05

✓25 Mpa. reinf. conc. in cols. ✓

Height of cols.
0,150 + 0,350 = 0,500 m ✓

3,150
\+ 0,400
3,550
Less 0,500
3,050 m ✓

2 x 0,400 = 0,800- 0,220
= 0,580m ✓

2 / 1,24 / 3,05
2 / 0,88 / 0,05

Frmwrk. to sides of conc. cols.n.e. 3,5 m high above bearing level. ✓

Per. of Col. A1
2 x 0,400 = 0.800
2 x 0,220 = 0,440
1,240 m ✓

Per of col. B1
4 x 0220 = 0880 m ✓

Per. of col. C1
4 x 0400 = 1,600 m ✓

(3)

2 / 1,60 / 3,05

Ditto, but to L-shape cols. ditto. ✓

21,12 / 0,22 / 0,35
3,56 / 0,22 / 0,35
7,00 / 4,00 / 0,15

25Mpa reinf. conc. in Bms. & slab incl. s.o.& cure hor. top surface. ✓

c.l. of r/bm.

2(3,000 + 4,0000)
= 14,000
2 x 4,000 = 8,000
22,000
Less 4 x 0,220 0,880
✓ 21,120 m

Int. bm. ✓
4,000 – 2(0,220) = 3,560m

21,12 / 0,22
3,56 / 0,22

Frmwrk. to soffits of bms. ✓

7,00 / 4,00

Ditto, but to soffits of slab. ✓

Ddt. ✓

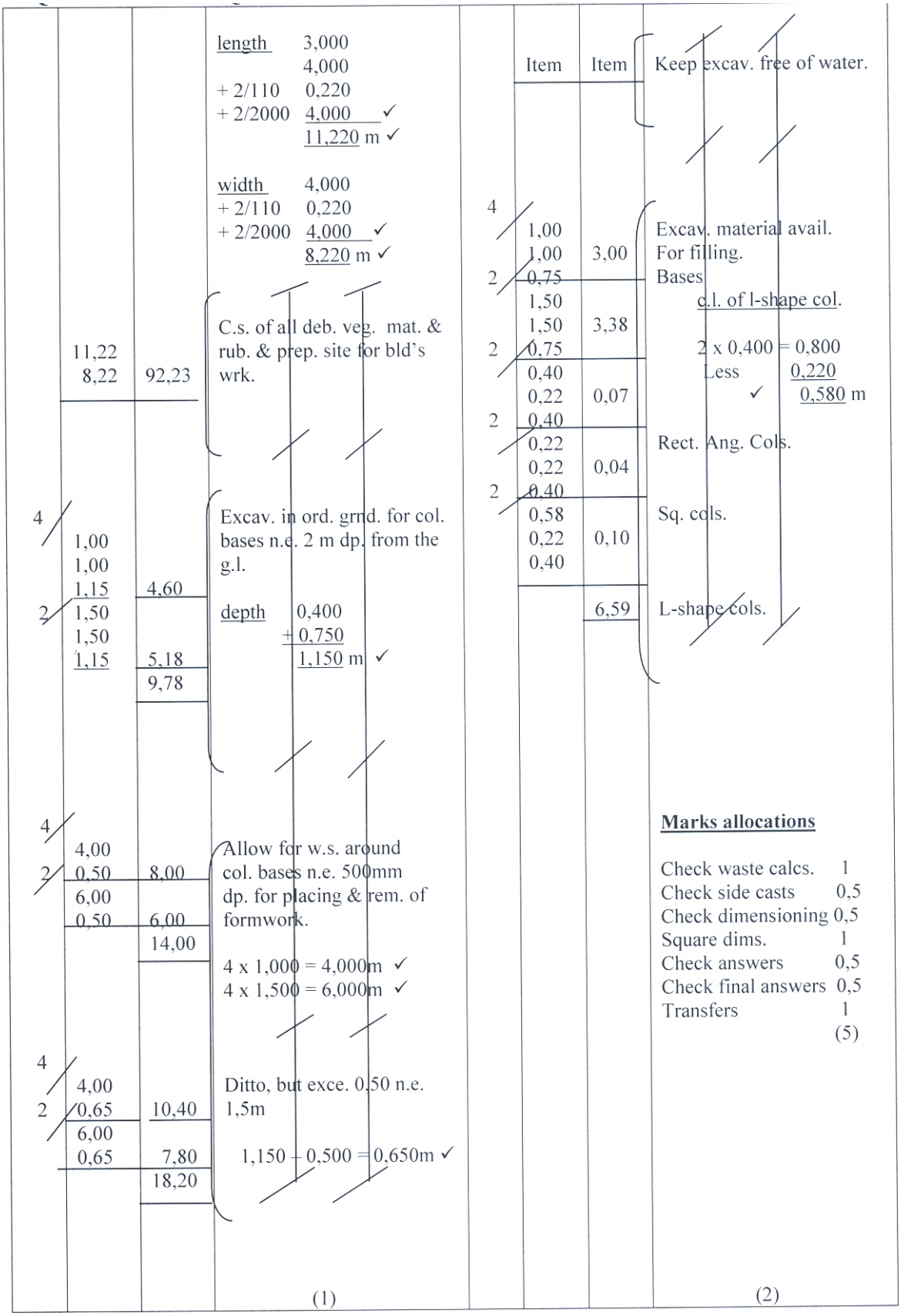
21,12 / 0,22
3,56 / 0,22

Frmwrk. to soffits of slab ✓

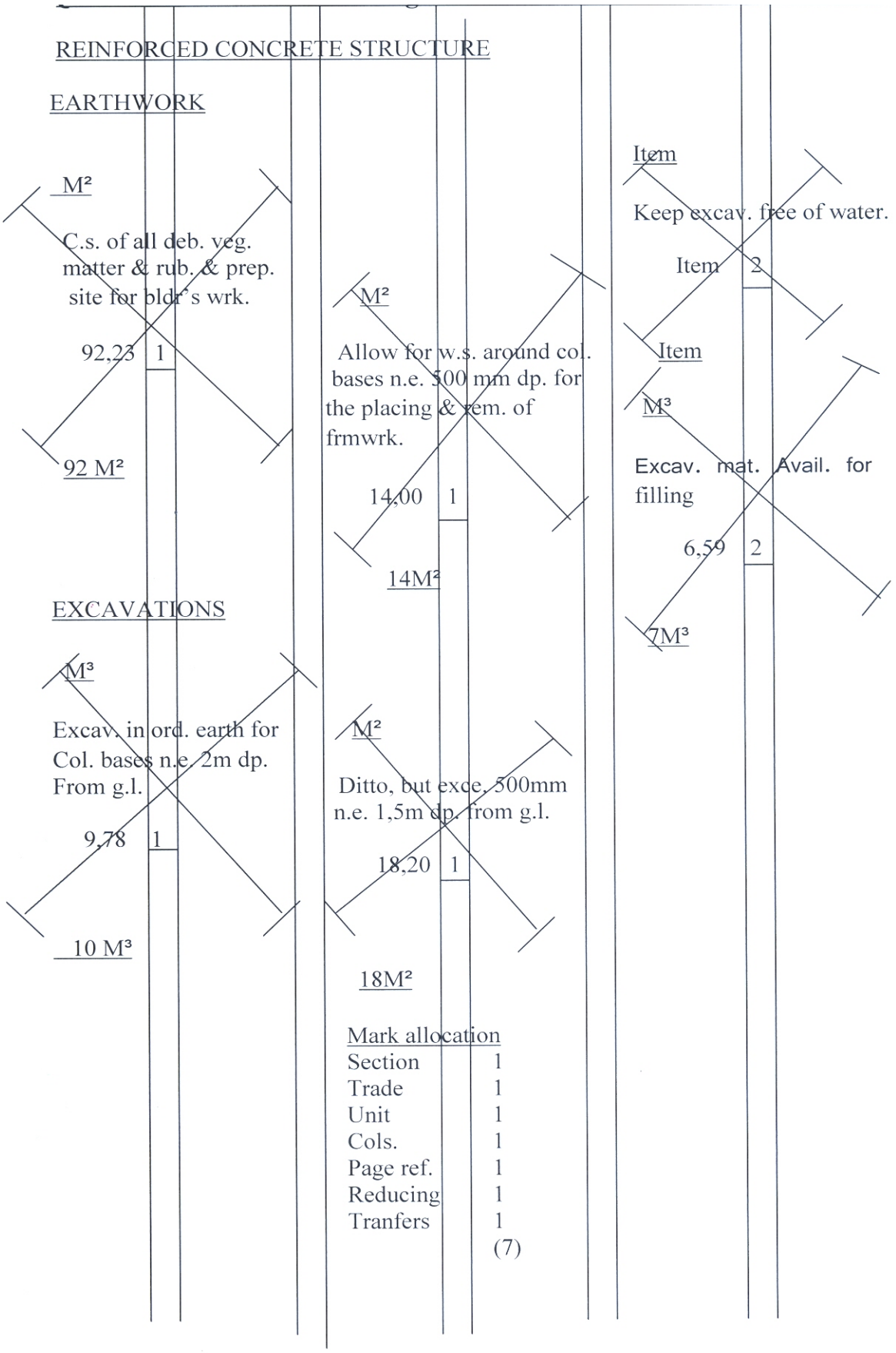
[20]

(4)

QUESTION 3.1 SQUARING



QUESTION 3.2: ABSTRACTING



REINFORCED CONCRETE STRUCTURE

EARTHWORK

M²

C.s. of all deb. veg. matter & rub. & prep. site for bldr's wrk.

92,23 1

92 M²

M²

Allow for w.s. around col. bases n.e. 500 mm dp. for the placing & rem. of frmwrk.

14,00 1

14M²

Item

Keep excav. free of water.

Item 2

Item

M³

Excav. mat. Avail. for filling

6,59 2

7M³

EXCAVATIONS

M³

Excav. in ord. earth for Col. bases n.e. 2m dp. From g.l.

9,78 1

10 M³

M²

Ditto, but exce. 500mm n.e. 1,5m dp. from g.l.

18,20 1

18M²

Mark allocation

Section	1
Trade	1
Unit	1
Cols.	1
Page ref.	1
Reducing	1
Tranfers	1
	(7)

QUESTION 3.3: BILLING

	REINFORCED CONCRETE STRUCTURE			
	BILL No. 1			
	EARTH WORK			
	Site works			
1	Clear site of all debris, vegetation and rubbish and prepare the site for builder's work.	M²	92	
	EXCAVATIONS			
2	Excavate in ordinary ground for concrete bases not exceeding 2 m deep from ground level.	M³	10	
3	Allow for working space around column bases not exceeding 500 mm deep from ground level for the placing and removal of formwork.	M²	14	
4	Ditto, but exceeding 500 mm, not exceeding 1,5 m deep from ground level.	M²	18	
5	Keep excavations free of water.	Item		
6	Filling from materials excavated.	M³	7	
	Mark allocation Section 1 Bill No. 1 Trade 1 Item No. 1 Description 1 Unit 1 Quantities 1 Summary 1 (8)			
	Carried to Summary	R		
				[20]

TOTAL SECTION A: 60

SECTION B

QUESTION 4

4.1	Builder's work complete	R 302 690,00 ✓	
	Add. materials on site	R 4 500,00 ✓	
		R 307 190,00✓	
	Less 10% retention	R 30 720,00✓	
		R 276 470,00✓	
	Less previous payments	R 250 120,00✓	
	Payment due to contractor	R 26 350,00✓	(7)

4.2
- To hold the contractor accountable for good workmanship.✓
- To hold the contractor accountable for using good quality materials.✓
- To hold the contractor accountable to do repairs in the event of any defects after handing over.✓ (3)

[10]

QUESTION 5

5.1 It is a valuation✓ in draft form compiled by the quantity surveyor of all the work✓ done by the contractor for a month as well as loose materials on site.

5.2 It is a document drawn up by the architect✓ based on the information provided by the quantity surveyor for payment by the client.✓

5.3 An article made for a specified contract✓ and to measurements and standard provided.✓

5.4 It refers to information✓ in or the same as that of a preceding item.✓

5.5 It is the date✓ the contractor stops work and moves off site.✓

(5 × 2) **[10]**

QUESTION 6

6.1
- Does cost planning and advice
- Does estimates
- Prepares tender documents
- Helps with tenders
- Checks priced bills of quantities
- Draws up monthly valuations
- Draws up the final account
- Checks price variations
- Does re-measurements (Any 5 × 1) (5)

6.2
- Gives advice to client
- Designs the project
- Draws up sketched plans
- Prepares the working drawings
- Is an agent for the client on site
- Checks quality of materials and workmanship
- Appoints nominated subcontractors and suppliers (Any 5 × 1) (5)

[10]

QUESTION 7

7.1
- Draw up check list
- Do waste calculations
- Write up descriptions of items of work to be done
- Do side casts if required
- Insert dimensions calculated or taken from drawings (Any 2)

7.2
- Check waste calculations and side casts
- Check dimensioning
- Square dimensions
- Check squaring
- Check final answers (Any 2)

7.3
- Transfer items from the dimension paper
- Check all transfers
- Gather all identical items
- Do page referencing
- Do casting up and reducing (Any 2)

7.4
- Round off fractions to whole quantities
- Round off items for reinforcing, concrete and structural steel to the nearest one decimal

7.5
- Transfer items and quantities from the abstract sheet
- Check all transfers
- Write up draft bills of quantities for typing as set out by the Standard System (Any 2)

(5 × 2) **[10]**

TOTAL SECTION B: 40
GRAND TOTAL: 100

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