Sample Solutions

1. a) Scale 1:10 ✓

Drawing ✓✓✓

(4 Marks)

**These Diagrams are not drawn to scale – please use correct scale for your submission**

1. b)

1 x back 3 ply ✓

2 x sides ✓ 1830 x 920 x 3mm ✓

Pine Shape ✓

1830 x 300

x 20 mm ✓

Shape ✓

6 x shelves ✓

pine

880 x 300

x 20mm ✓

Shape ✓

(9 Marks)

2. a) 2 x 1830 + 6 x 880 ✓

= 3660 + 5280 ✓

= 8940mm of Pine (or 8.94m) ✓

b) 1830 x 920 = 1683600mm2 of 3 ply (or 1.6836m2) ✓✓✓

(6 Marks)

3. Cutting → Gluing → Screwing → Tacking the Back → Spray → Dry

→ Spray → Dry → Spray → Dry → Finish. ✓✓✓

(3 Marks)

4. a) 3⅓ lengths per unit

or 10 lengths for 3 units ✓✓ 880mm

1830mm

b) Total waste for 3 units 3180mm ✓✓

880mm

3m

c) Cost for 3 units

= 10 x $42.90 = $429.00 ✓✓

Cost for 1 unit 880mm 880mm

= $429 ÷ 3 = $143.00 ✓

290mm 360mm

(7 Marks)

5. Total cost for 1 unit.

Pine = = $143.00

3 ply = = $11.45 ✓

Paint = 250ml ie ¼l @ $30/l = ¼ x $30 = $7.50

Thinners = 250ml ie ¼l @ $17/l = ¼ x $17 = $4.25 ✓

Woodglue = 200ml ie 1/5l @ $15/l = 1/5 x $15 = $3.00 ✓

Wood screws = 24/100 x $4.50 = $1.08 ✓

Tacks = 24/1000 x $12 = $0.29

Total = $170.57 ✓

(5 Marks)

6. Total time for 1 unit

Mark and cut = 1 hr ÷ 3 = 20 min ✓

Glue, screw together & tack back = 70 min ✓

Spraying = 3 hrs ÷ 4 = 45 min ✓

Total time = 135 min ✓

= 2hrs 15 min

(4 Marks)

7. Labour cost 2¼ hrs x $50 ✓

= $112.50 ✓

(2 Marks)

8. Total Cost is $112.50 + $170.57 = $$283.07 ✓

Charge per Bookcase = $283.07 + 15%

= $283.07 + $42.46 ✓

= $325.53 ✓

≈ $326

(3 Marks)

9. 7.30pm → 4pm = 8½ hrs

less: 25 min, 45 min & 20 min = 1½ hrs ✓

Total hours worked per day = 8½ - 1½ = 7 hrs ✓

Time worked in 12 days = 12 x 7 = 84 hrs ✓

Time required to make 40 = 40 x 2¼ = 90 hrs ✓

Overtime Roemi needs to do = 90 – 84 = 6hrs ✓

(5 Marks)

10. Profit = ( $326 - $283.07 ) x 40

= $42.93 x 40 ✓

= $1717.20 ✓

(2 Marks)

Total Marks (50 Marks)