This marking guideline consists of 15 pages.
QUESTION 1: SAFETY AND MATERIALS (GENERIC)

1.1 Hard hat (1)

1.2 A tie can get stuck in the moving parts and cause injuries (1)

1.3 1.3.1 False (1)
    1.3.2 False (1)
    1.3.3 True (1)
    1.3.4 True (1)

1.4 Storing of materials on site.
   1.4.1 Any ONE area on which materials can be placed:
       • Shelves
       • Pallets (1 x 1) (1)
   1.4.2 Any ONE reason why heaps of sand and stone be covered with plastic:
       • To keep it clean
       • To prevent wash away during rainfalls
       (Similar answer) (1 x 1) (1)
   1.4.3 To prevent the materials from mixing. (1)

1.5 1 800 mm ÷ 3 (1) = 600 mm (1) (2)

1.6 Reinforced concrete contains steel reinforcement bars. (1)

1.7 Any ONE purpose of coarse aggregate in a concrete mixture:
       • Provides volume stability to the concrete
       • Economical – forms the bulk of the mixture
       • Lower the shrinkage potential of the concrete (1 x 1) (1)

1.8 Lime (1)

1.9 Screed (1)

1.10 Hardwood (1) and softwood (1) (2)

1.11 Any ONE use of plywood:
       • Bottoms of drawers
       • Wall panelling
       • Door panels
       • Cupboard panels
       • Interior balustrades / railings
       • Framing (1 x 1) (1)
1.12 1.12.1 Non-ferrous metal
1.12.2 Ferrous metal

1.13 Any ONE use of lead in the building environment:
- Batteries
- Cable sheaths
- Lead pipes
  (Similar answer) (1 x 1)

1.14 Any ONE use of stainless steel in the building environment:
- Sinks
- Wash tubs / baths
- Water taps
- Water traps
- Extractor fans
- Similar answer

1.15 • Dry-fit the parts to make sure the pipes are fitted in the right direction (1)
• Apply a light coat of PVC glue to the fitting and the pipe (1)
• Slightly twist and push parts into position (1)

1.16 3 mm

1.17 Any TWO uses of translucent glass:
- Bathroom / toilet windowpanes
- Glass bricks for walls
- Doors
- Urban furniture and appliances
  (2 x 1)

1.18 Thermoplastic (1) and thermosetting plastic (1)
QUESTION 2: EQUIPMENT, TOOLS AND GRAPHICS (GENERIC)

2.1 Prevent rust.  

2.2 Cold chisel is used to cut holes / grooves in concrete / brickwork / metal (1)  
Bolster is used to cut tricks (1)  

2.3 Name the tools in FIGURES 2.3.1 to 3.3.3 and name ONE use of each.  

2.3.1 Pick (1)  
Any ONE use (1):  
• Loosening hard ground during excavations  
• Breaking up rock (2)  

2.3.2 Block brush (1)  
Any ONE use (1):  
• Moistening plaster  
• Dampening surfaces / concrete (2)  

2.3.3 Plane (1)  
Any ONE use (1):  
• Planing timber  
• Smoothing rough surfaces on timber (2)  

2.4 2.4.1 Spirit level (1)  
2.4.2 (1) Test if the head is horizontal and (2) if the stiles are installed vertically. (2)  
2.4.3 Any TWO precautions for the spirit level:  
• Wipe clean after use  
• Not allow plaster / cement to dry on it  
• Store in a dry place (2 x 1) (2)  

2.5 2.5.1 Portable circular saw (1)  
2.5.2 Any TWO uses:  
• Cutting wood  
• Cutting other materials with specific blades  
• Cutting rebates (2 x 1) (2)  

2.6 2.6.1 To include more information (1)  
2.6.2 (1) To highlight details that (2) may not be clearly understood (2)  
2.6.3 Open eave (1)
2.6.4  A – DPC (1)
B – Beam filling / halfbrick wall (1)
C – Facia board / plank (1)
D – Singlebrick wall (1)
E – Ceiling / cornice (1) (5)

2.6.5  Prevents dust / vermins / etc from entering underneath the roof (1)

2.6.6  Fixing gutters (1)

2.7  To ensure that the horizontal and vertical external measurements (1)
correspond with the individually internal measurements (1) (2)

2.8  (1) Bottom on the right-hand side of drawing sheet (1) (2)

2.9  1 : 100 (1)

2.10  2.10.1  Natural ground level (1)
2.10.2  Finished floor level (1)

2.11  2.11.1

2.11.2  [Diagram]

2.11.3  [Diagram] (1) [40]
QUESTION 3: QUANTITIES, JOINING AND GRAPHICS (GENERIC)

3.1 3.1.1 Site plan (1)

3.1.2 123 (1)

3.1.3 Boundary wall (1)

3.1.4 B = Manhole  C = Rodding eye (2)

3.2 ONE use of PVC glue:
- To bond PVC pipes (1)

3.3 PVC adhesive (1)

3.4 3.4.1

3.4.2

3.4.3

3.5 The application steps for PVA adhesive:
1. Dry-fit parts to make sure the pipes are fitted in the right direction
2. Apply a light coat of PVC glue to the fitting and the pipe
3. Slightly twist and push parts into position (3)

3.6 Any THREE precautions when using contact glue:
- Be careful not to allow the adhesive to dry fully before assembly
- Do not wait too long before assembling the parts
- The glue should not be applied too quickly (3 x 1)

3.7 Any FIVE uses of silicone:
- Basic sealant against air and water leakage
- Textile uses
- Enhances materials
- Used in aviation
- Construction repairs
- Electronics (5 x 1)
3.8 Any TWO properties of EACH of the following adhesives

3.8.1 Silicone
- Heat resistant
- Conductive or insulating
- Rubbery
- Low heat conductivity
- Resist chemicals / low chemical reaction
- Low toxicity
- Waterproof / repels water

3.8.2 Contact glue
- Adheres well to most materials (plastics, rubber, paper, wood, etc.)
- Sticks to most non-porous materials
- Rubbery and has a creamy colour
- Flammable
- Water-resistant
- Dries quickly and adheres / sticks immediately

3.8.3 PVA glue
- Water-based
- For interior and exterior use
- White or yellowish colour before it dries, clear when dry
- Yellow PVA is not completely clear on drying
- Super strong when used on wood
- Dries quickly
- Inexpensive
QUESTION 4: CASEMENTS, GRAPHICS, TOOLS AND EQUIPMENT, DOORS AND WALL PANELLING (SPECIFIC)

4.1 ANSWER SHEET 1

4.2 4.2.1 • Transom ✓
• Bottom rail of fanlight ✓
• Top rail of casement ✓

4.2.2 Dripgroove ✓

4.3 ANSWER SHEET 2

4.4 Framed ledged and braced batten door

[Image of a framed door with red marks indicating points of interest]
QUESTION 5: CENTERING, FORMWORK, SHORING AND MATERIALS (SPECIFIC)

5.1 5.1.1 A. Vertical clamps  B. Yoke or collar
        C. Plywood  D. Laggings (4)

5.1.2 To hold the formwork in place or to tighten the formwork (1)

5.1.3 • Can’t be used for long
• If timber is dry, it will absorb moisture from the wet concrete which could weaken the resultant concrete member
• Wet concrete will shrink and cup leading to open joints and leakage (2 x 1) (2)

5.1.4 • Manufactured in big boards
• Makes it ideal for the sides of formwork because it can be cut into different sizes (2 x 1) (2)

5.2 5.2.1 • Are placed at an angle against walls to provide temporary support
• To support leaning or unstable walls
• Transferring weight to the ground or to other supporting members. (Any 1) (1)

5.2.2 • Temporary horizontal support to two parallel walls
• Where one of the walls tends to lean or show signs of failure
• Between gable walls of adjacent buildings when an intermediate building must be demolished or work has to be done on the foundations of an adjacent building (Any 1) (1)

5.3 5.3.1 It receives the load that is transferred both vertically and horizontally and distributes it into the ground. (1)

5.3.2 Transfers the horizontal vertical load exerted on the wall plate to the sole plate. (1)

5.4 5.4.1 A. Ties  B. Horizontal brace
        C. Diagonal brace  D. Strut (4)

5.4.2 To prevent the opposite ends of the ribs from moving apart under the weight of the arch. (1)

5.4.3 • To join the outside and inside ribs
• Keeps the centre square and increases its rigidity (2)
5.5

A. Tie  B. Strut  C. Horizontal brace  D. Diagonal brace  

(Any 2)  (5)

5.6  

A. Laggings  
B. Rib  
C. Strut  
D. Tie  
E. Bearer  

(5)  

[30]
QUESTION 6: SHORING, JOINING, QUANTITIES, WALL PANELLING, CUPBOARDS AND IRONMONGERY (SPECIFIC)

6.1 6.1.1 False (1)
6.1.2 False (1)
6.1.3 True (1)
6.1.4 True (1)

6.2 6.2.1 A. Rising butt hinge (1)
6.2.2 B. Parliament hinge (1)
6.2.3 C. Strap hinge (1)

6.3 It is there to cover the joint between the wall and the ceiling (1)

6.4 Cornice for long walls = 2 x 5 m = 10 m
Cornice for short walls = 2 x 3 m = 6 m
Total length of cornices = 10 + 6 = 16 m (4)

6.5 6.5.1 Parliament hinge (1)
6.5.2 Flush bolts or barrel bolts (1)

6.6 ANSWER SHEET 3 (6)

6.7 Any part x 1 (5)

6.8 • Plywood
• Block board
• Hardboard/Masonite (3)

6.9 Volume of concrete = ℓ x b x h
= 28 m x 0,45 m x 0,15 m
= 1,89 m³ (5)

6.10 ANSWER SHEET 4 (7)

[40] TOTAAL: 200
4.1

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Correctness ✓

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(5)
6.6 Front view one panel door

- Top rail 114 mm x 44 mm
- 16 mm flat panel
- Stile 114 mm x 44 mm
- Bottom rail 220 x 44 mm
6.10 Cabinet

[Diagram showing a cabinet with specifications: top, 50 mm x 20 mm door frame, 3 mm plywood back, 16 mm thick middle shelf, 16 mm thick bottom shelf, 100 mm x 20 mm base, Hardboard (Masonite)]