UPWELD | FREE PRACTICE SAMPLE

CSWIP 3.1 Practical Part 1

2 simulated specimens | 10 assessed questions

Weld inspection, measurements and model reports

Official format: inspect and report on 8 specimens in 90 minutes; pass mark 70%.
The official scheme does not specify 40 practical MCQs.
UpWeld uses five practice tasks per specimen, two marks per task.
This sample has one rejection and one acceptance scenario.
Use UW-VT-01 on the next page. All readings are simulated.
Diagrams are not to scale. Training limits are not industrial or official CSWIP limits.
Assume clean accessible surfaces, adequate lighting, checked gauges, exact readings, and all unlisted applicable findings compliant. One failed applicable limit rejects.
Plate locations are measured from weld start; depths/heights from adjacent surface.
Real inspection requires the governing code and appropriate physical examination.

Take the complete FREE 8-specimen / 40-task practice test

Paid CSWIP 3.1 question bank: 3,000+ questions | $50 USD

Email: upweld.org@gmail.com

Purchase via WhatsApp: https://wa.link/j7oewk

Independent educational resource; not affiliated with or endorsed by CSWIP/TWI.
Official reference: CSWIP-WI-6-92, 17th Edition, June 2024, Appendix 1, 2.1.

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UW-VT-01 Rev. 0

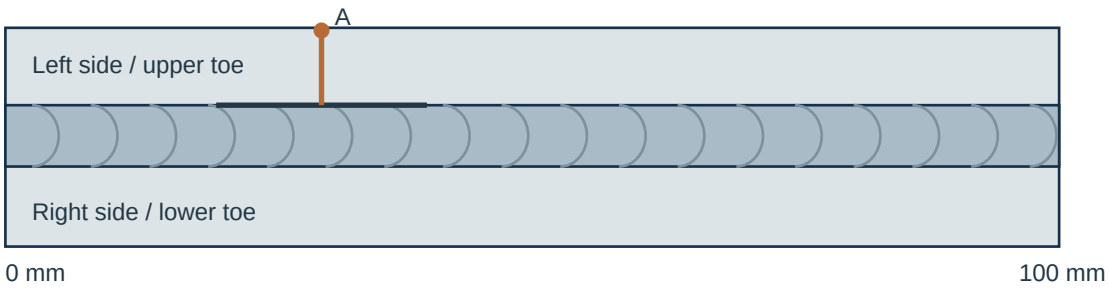
Acceptance specification | all limits inclusive

01 Confirmed surface cracks: None permitted
02 Visible lack of fusion: None permitted
03 Visible incomplete penetration: None permitted in specified full-penetration joints
04 Overlap: None permitted
05 Undercut depth: at most 0.5 mm at any point
06 Undercut length: at most 25 mm total in any 100 mm window; same absolute limit for shorter welds
07 Individual surface pore diameter: at most 1.5 mm
08 Surface pore count: at most 3 in any 100 mm window; same absolute limit for shorter welds
09 Excess weld metal: at most 3 mm above adjacent surface
10 Linear misalignment: at most 1.5 mm between corresponding surfaces
11 Fillet leg length: Each leg at least drawing minimum
12 Fillet throat: Measured throat at least drawing minimum; no inferred effective throat
13 Root concavity: Depth at most 0.5 mm AND remaining thickness at least drawing minimum
14 Excess root penetration: at most 2 mm above adjacent internal surface
15 Angular misalignment: at most 3 degrees deviation from intended angle
16 Arc strikes outside weld: None permitted
17 Fillet convexity: at most 2 mm above straight toe-to-toe chord
18 Weld length: at least drawing minimum

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UW-P01 | Plate butt weld

12 mm plate; 100 mm weld; MMA; full penetration



Original schematic, not to scale. Use supplied readings, not printed dimensions.

Simulated observations / gauge readings

Undercut depth | Left toe, 20–40 mm | 0.8 mm

Undercut length | Left toe, 20–40 mm | 20 mm

Excess weld metal | Face, 60 mm | 2.5 mm

Assessment tasks 1–5 (2 marks each)

1. What is indication A, a groove adjoining the left weld toe?

A. Surface pore

B. Undercut

C. Root concavity

D. Overlap

2. Where should indication A be recorded?

A. Face centre, 60 mm

B. Left toe, 20–40 mm

C. Right toe, 20–40 mm

D. Root, 20–40 mm

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UW-P01 | Assessment continued

Plate butt weld

3. What is the simulated maximum depth of A?

A. 0.8 mm
B. 0.5 mm
C. 20 mm
D. 2.5 mm

4. Which finding exceeds UW-VT-01?

A. Excess weld metal
B. Undercut depth
C. Undercut length
D. None

5. What is the final disposition under UW-VT-01 for the supplied findings?

A. Reject and record the nonconformities
B. Ignore the supplied criteria
C. Accept without corrective action
D. Approve for all service conditions

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UW-P01 | Model inspection report

Plate butt weld

Report: UW-P01-VT | Fabricator: simulated UpWeld | Inspector: training model | Date: not applicable

12 mm plate; 100 mm weld; MMA; full penetration

Method: simulated VT; checked gauges assumed. UW-P07 includes supplied PT confirmation.

Criteria: UW-VT-01 Rev. 0

Undercut depth | Left toe, 20–40 mm | 0.8 mm | Cl. 5: Max 0.5 mm | REJECT

Undercut length | Left toe, 20–40 mm | 20 mm | Cl. 6: Max 25 mm | ACCEPT

Excess weld metal | Face, 60 mm | 2.5 mm | Cl. 9: Max 3 mm | ACCEPT

Final disposition: REJECT

Corrective action: Record failures; refer for approved corrective action and reinspection.

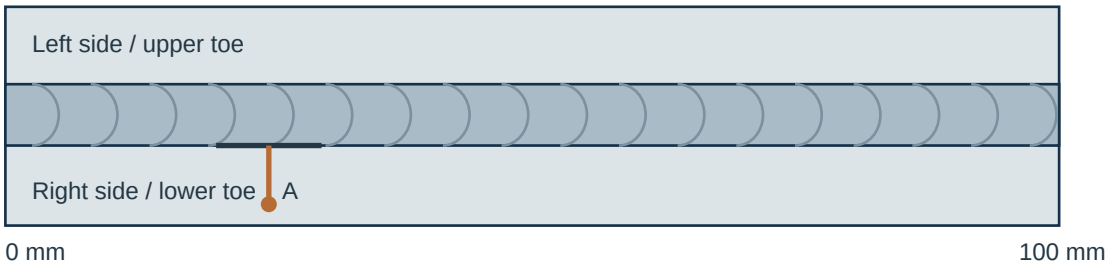
Answer key and explanations

1. B — A groove in parent metal at the weld toe is undercut (WIS5 section 3.6.1).
2. B — Use the marked datum and toe location, not just the distance.
3. A — The depth reading is 0.8 mm; 20 mm is its length.
4. B — 0.8 > 0.5 mm; 20 ≤ 25 mm and 2.5 ≤ 3 mm.
5. A — Reject because Undercut depth fail the stated criteria. Refer for authorized corrective action and reinspection.

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UW-P08 | Plate butt weld – acceptance check

12 mm plate; 100 mm weld; MAG; full penetration



Original schematic, not to scale. Use supplied readings, not printed dimensions.

Simulated observations / gauge readings

Undercut depth | Right toe, 20–30 mm | 0.4 mm

Undercut length | Right toe, 20–30 mm | 10 mm

Excess weld metal | Face, 50 mm | 2.8 mm

Angular misalignment | Across joint | 2 degrees

Assessment tasks 1–5 (2 marks each)

36. What is the shallow groove at the right toe?

A. Undercut
B. Porosity
C. Overlap
D. Root concavity

37. Where is this groove recorded?

A. Right toe, 20–30 mm
B. Left toe, 20–30 mm
C. Face, 90 mm
D. Root, 50 mm

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UW-P08 | Assessment continued

Plate butt weld – acceptance check

38. What is the angular deviation across the joint?

A. 3 degrees
B. 2.8 degrees
C. 0.4 degrees
D. 2 degrees

39. Which statement is correct under UW-VT-01?

A. Cap height exceeds 3 mm
B. All listed findings pass
C. Angular deviation exceeds 3 degrees
D. Any undercut requires rejection

40. What is the final disposition under UW-VT-01 for the supplied findings?

A. Reject despite all listed findings passing
B. Accept the simulated specimen
C. Ignore the supplied criteria
D. Approve for all service conditions

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UW-P08 | Model inspection report

Plate butt weld – acceptance check

Report: UW-P08-VT | Fabricator: simulated UpWeld | Inspector: training model | Date: not applicable

12 mm plate; 100 mm weld; MAG; full penetration

Method: simulated VT; checked gauges assumed. UW-P07 includes supplied PT confirmation.

Criteria: UW-VT-01 Rev. 0

Undercut depth | Right toe, 20–30 mm | 0.4 mm | Cl. 5: Max 0.5 mm | ACCEPT

Undercut length | Right toe, 20–30 mm | 10 mm | Cl. 6: Max 25 mm | ACCEPT

Excess weld metal | Face, 50 mm | 2.8 mm | Cl. 9: Max 3 mm | ACCEPT

Angular misalignment | Across joint | 2 degrees | Cl. 15: Max 3 degrees | ACCEPT

Final disposition: ACCEPT

Corrective action: None for listed findings; simulated scope only.

Answer key and explanations

36. A — The right-toe groove is simulated undercut.
37. A — Use the right toe and the 20–30 mm interval.
38. D — The angle reading is 2 degrees; other numerical readings use millimetres.
39. B — 0.4 ≤ 0.5; 10 ≤ 25; 2.8 ≤ 3; 2 ≤ 3. All listed findings pass.
40. B — All listed findings meet the simulated limits; acceptance is restricted to this visual exercise.

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