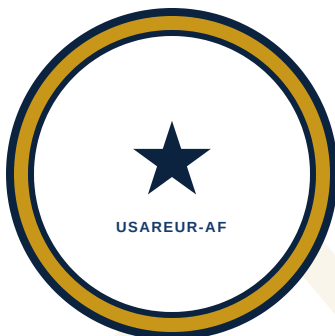


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PUBLICATION

EXAM-TM40N-PRE



PRE-TEST — SL 4N: UI/UX DESIGNER

Maven Smart System (MSS) — USAREUR-AF

HEADQUARTERS
UNITED STATES ARMY EUROPE AND AFRICA
(USAREUR-AF)
Wiesbaden, Germany

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26 MARCH 2026

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PRE-TEST — SL 4N: UI/UX DESIGNER

MAVEN SMART SYSTEM (MSS) — USAREUR-AF

Field	Detail
Course	SL 4N: UI/UX Designer
Form	Pre-Test
Level	SL 4N (Specialist)
Audience	UI/UX designers; prerequisite: SL 1+20+30 + design tool familiarity + user research methods
Time Allowed	30 minutes
Passing Score	N/A — diagnostic only

INSTRUCTIONS

This diagnostic assessment establishes your baseline knowledge before training. Your score does not affect course eligibility. Answer honestly — results help the instructor tailor instruction to gaps.

SECTION 1 — MULTIPLE CHOICE

Circle the letter of the best answer. (2 points each)

1. "Human-centered design" prioritizes:

A. The aesthetic preferences of the design team
B. Understanding and addressing the needs, behaviors, and constraints of the people who will use the product
C. Minimizing development cost by simplifying the interface
D. Following industry design trends to ensure a modern look

2. In user research, "contextual inquiry" means:

A. Sending a survey to users and analyzing the responses
B. Asking users to sort cards representing features into categories
C. Testing a finished product with users to identify bugs
D. Observing and interviewing users in their actual work environment while they perform real tasks

3. An "information architecture" defines:

A. The visual styling (colors, fonts, spacing) of an application
B. The server infrastructure that hosts the application
C. The organization, structure, and labeling of content so users can find and understand information
D. The database schema used to store application data

4. WCAG 2.1 AA requires a minimum contrast ratio of _____ for normal body text:

A. 4.5:1 B. 3:1 C. 2:1 D. 7:1

5. In a usability test, the "think-aloud" protocol asks participants to:

A. Write down their thoughts after completing all tasks
B. Rate each screen on a scale of 1–10
C. Verbalize their thoughts, questions, and reasoning as they interact with the design in real time
D. Compare two competing designs and choose the better one

6. A "wireframe" is best described as:

A. A fully coded, functional prototype
B. A structural layout showing content placement and hierarchy without detailed visual design
C. A marketing document describing the product's value proposition
D. A database entity-relationship diagram

7. Section 508 of the Rehabilitation Act requires:

A. All software to be open-source
B. Federal electronic and information technology to be accessible to people with disabilities
C. All websites to load within 3 seconds
D. All government applications to support multiple languages

8. When using color to indicate status (e.g., red for "not ready"), WCAG 2.1 requires:

A. Using the brightest possible colors for maximum visibility
B. Using only primary colors (red, blue, yellow)
C. Avoiding red entirely because it is culturally sensitive
D. Providing a non-color indicator (icon, text, pattern) as a redundant cue — color must not be the sole means of conveying information

SECTION 2 — SHORT ANSWER

Answer in 2–3 sentences. (5 points each)

9. What is the difference between a "persona" and a "user story"?

10. Why might a design that works well in an office environment fail in a military field setting? Name at least two environmental factors.

11. Describe the "balanced team" model. What three roles form the core team, and what does each contribute?

12. What is a "design handoff"? What artifacts should it include for a developer to implement the design without follow-up questions?

SECTION 3 — SCENARIO

Answer in 3–5 sentences. (10 points)

13. A battalion staff officer tells you: "I need a dashboard that shows everything about readiness." This is too vague to design from. Describe your SCD approach: what would you do before designing anything? What questions would you ask? What methods would you use?

SCORING SUMMARY

Section	Questions	Points Each	Total Points
Multiple Choice	8	2	16
Short Answer	4	5	20
Scenario	1	10	10
Total	—	—	46

Passing: N/A — Pre-test is diagnostic only.

ANSWER KEY — INSTRUCTOR USE ONLY

Do not distribute to students.

Multiple Choice: 1. B — Human-centered design prioritizes the needs, behaviors, and constraints of the end users. 2. D — Contextual inquiry = observing and interviewing users in their actual work environment during real tasks. 3. C — Information architecture defines the organization, structure, and labeling of content for findability and comprehension. 4. A — WCAG 2.1 AA requires a 4.5:1 contrast ratio for normal body text. 5. C — Think-aloud asks participants to verbalize thoughts and reasoning in real time while interacting with the design. 6. B — A wireframe is a structural layout showing content placement and

hierarchy without detailed visual design. 7. B — Section 508 requires federal IT to be accessible to people with disabilities. 8. D — Color must not be the sole means of conveying information; a non-color indicator (icon, text, pattern) must be provided as a redundant cue.

Short Answer Guidance:

SA-9. Full credit: a persona is a research-based archetype representing a user type — it captures goals, behaviors, pain points, and context (e.g., "SGT Torres, S3 battle NCO, needs fast readiness updates"); a user story is a single feature requirement written from the user's perspective ("As a battle NCO, I want to see readiness at a glance so I can brief the commander in 30 seconds"). Persona = who the user IS; user story = what the user NEEDS TO DO. Partial credit (3 pts) for correct distinction without concrete examples.

SA-10. Full credit: at least two of — bright sunlight (screen glare, washed-out colors); gloved operation (small touch targets fail); low light / NVG use (color palette must adapt); noise (audio cues are inaudible); mobile/dismounted use (device is handheld, bouncing, one-handed); DDIL connectivity (latency, disconnection). Must name two specific environmental factors and explain how each degrades usability. Partial credit (3 pts) for two factors without explanation.

SA-11. Full credit: the balanced team model has three core roles — Product Manager (defines what to build and why, represents stakeholder needs), Designer (defines how users interact with it, advocates for user experience), and Engineer (defines how to build it, assesses technical feasibility). They work as co-equals — no single role overrides the others; decisions are made collaboratively through trade-off discussions. Partial credit (3 pts) for naming three roles without explaining their contributions.

SA-12. Full credit: a design handoff is the package a designer delivers to a developer for implementation. It must include: final mockups for all states (default, loading, empty, error, success), interaction specifications (hover, click, transitions), data bindings (what field maps to what element), accessibility checklist (ARIA labels, tab order, contrast), responsive breakpoints, and edge case documentation (max character lengths, missing data). Without these, the developer must guess — causing rework, inconsistency, or missed accessibility requirements. Partial credit (3 pts) for correct definition without comprehensive artifact list.

Scenario Guidance:

S-13. Full credit (10 pts): response must describe a Soldier Centered Design approach — (1) conduct user research before designing: interview the battalion S3 and staff to understand what decisions they actually make, what data they need, what their workflow looks like; (2) ask clarifying questions: What decisions do you make based on readiness data? How often? What metrics matter most? What do you do when readiness drops below threshold? Who else uses this? In what environment (office, TOC, field)?; (3) methods: contextual inquiry (observe them in the TOC), stakeholder interviews, task analysis; (4) synthesize into personas and prioritized user stories before wireframing. Must demonstrate that "understand before design" is the principle, not jumping to wireframes. Partial credit (5 pts) for listing methods without connecting them to the specific scenario. Deduct 3 pts if student skips user research and jumps to design.

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