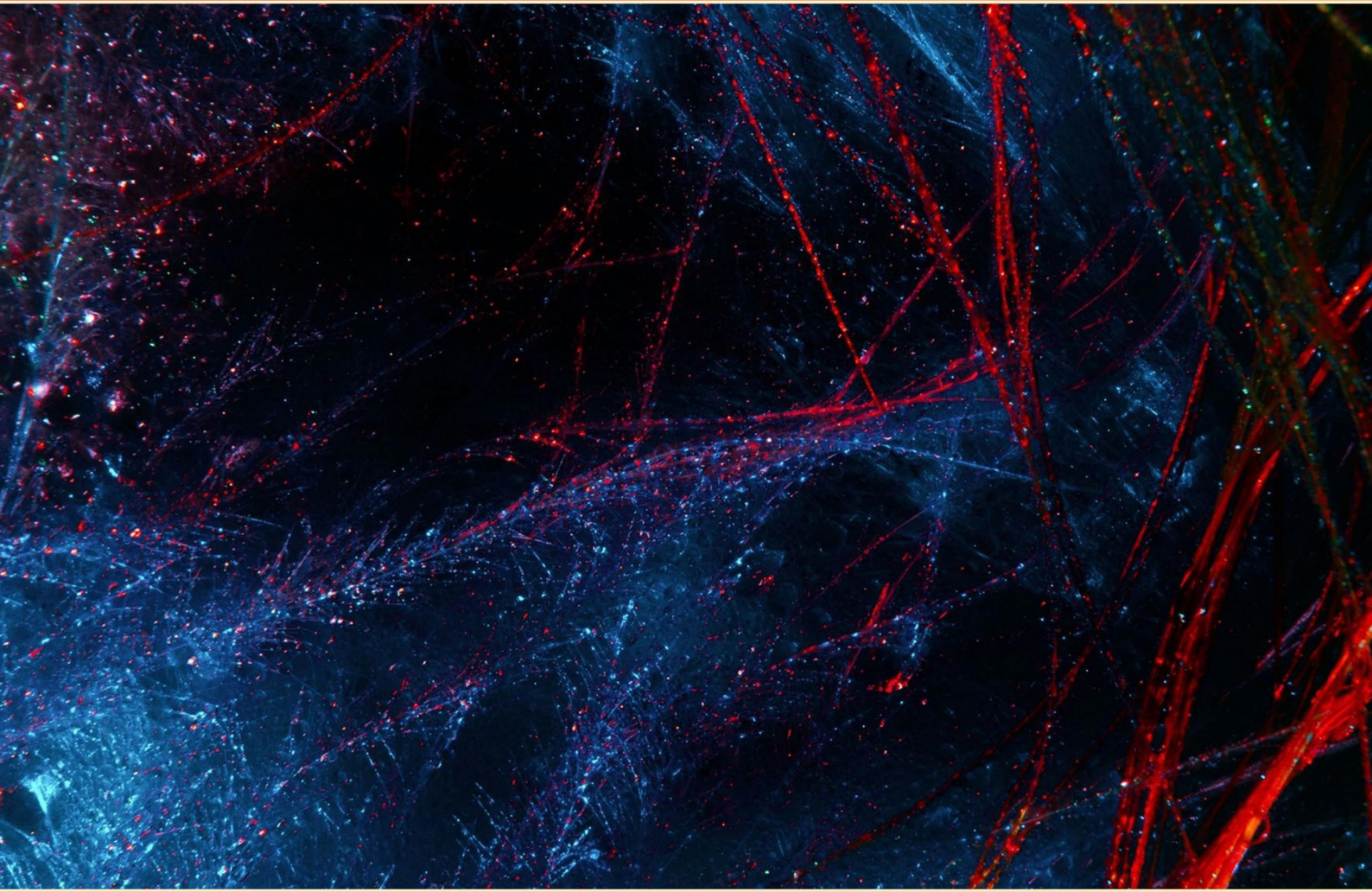


COGNITIVE PSYCHOLOGY 414 EXAM ONE PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

<https://cognitivepsych414exam1.examzify.com>



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Table of Contents

Copyright	1
Table of Contents	2
Introduction	3
How to Use This Guide	4
Questions	5
Answers	8
Explanations	10
Next Steps	15

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

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- 1. The Dee case led to a proposal that What vs Where is better thought of as What vs How. Which option best captures this claim?**
 - A. It stays What vs Where
 - B. It becomes What vs How organization
 - C. It becomes Where vs How organization
 - D. It has no relation to the dorsal stream
- 2. In parallel distributed processing, processing can happen at many different levels of representation at the same time.**
 - A. Processing occurs in a single brain area at a fixed level.
 - B. Processing can occur at many different levels of representation at the same time.
 - C. Processing is strictly sequential from low to high levels.
 - D. Processing only occurs in the occipital lobe.
- 3. In the video-change detection scenario, why were many changes likely not detected?**
 - A. All changes were semantically different and easy to notice.
 - B. Changes were background and not the focus of attention, so they weren't noticed.
 - C. The video contained too few changes.
 - D. Observers were told to ignore the plot.
- 4. Place cells are neurons located in which brain region, and what is their role?**
 - A. Amygdala
 - B. Hippocampus; fire for specific locations and support spatial memory/navigation
 - C. Cerebellum
 - D. Prefrontal cortex
- 5. Which statement best describes how attention spreads after selecting part of an object?**
 - A. It remains limited to the feature
 - B. It is suppressed
 - C. It spreads to unrelated objects
 - D. It spreads to the whole object

- 6. A purely bottom-up visual perception system would have difficulty with which task?**
- A. Detecting color discriminations under stable lighting.
 - B. Depth perception from binocular disparity.
 - C. Identifying the final letter when the bottom piece of the letter E is obscured.
 - D. Perceiving motion in a simple scene.
- 7. In anatomical terminology, which term means toward the back or top of the body?**
- A. Medial
 - B. Lateral
 - C. Ventral
 - D. Dorsal
- 8. The dorsal visual stream supports which combination of functions?**
- A. What and Where
 - B. Where and How
 - C. What and How
 - D. Color and Motion
- 9. Introspection had several problems. One problem was that the method had**
- A. The method had perfect replicability
 - B. The method had poor replicability
 - C. The results were identical across researchers
 - D. The method was easily standardized
- 10. All of the following are factors that make visual perception a hard problem, EXCEPT**
- A. Light sources are most often located above objects.
 - B. Occlusion
 - C. Shape variability with motion
 - D. Noise in the visual scene

Answers

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1. B
2. B
3. B
4. B
5. D
6. C
7. D
8. B
9. B
10. A

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Explanations

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1. The Dee case led to a proposal that What vs Where is better thought of as What vs How. Which option best captures this claim?

- A. It stays What vs Where
- B. It becomes What vs How organization**
- C. It becomes Where vs How organization
- D. It has no relation to the dorsal stream

The main idea is that the brain's object-recognition pathway (the "what" path) and the action-guiding pathway (the "how" path) are better described as what we perceive versus how we act, not just where something is. The Dee case pushed the view that the dorsal stream isn't solely about location (where) but about the actions we can take with an object—gripping, reaching, manipulating—based on the object's properties. So describing the organization as What vs How captures that shift: perception of the object (what) is linked to the appropriate interaction or action (how). Staying with What vs Where would miss the emphasis on action planning; flipping to Where vs How would misplace the ventral stream's role and still keep location at the center. And saying there's no relation to the dorsal stream ignores the whole idea that this pathway underpins how we act on objects, not just where they are.

2. In parallel distributed processing, processing can happen at many different levels of representation at the same time.

- A. Processing occurs in a single brain area at a fixed level.
- B. Processing can occur at many different levels of representation at the same time.**
- C. Processing is strictly sequential from low to high levels.
- D. Processing only occurs in the occipital lobe.

Parallel distributed processing centers on the idea that cognitive processing is distributed across many neural units and levels, and is activated in parallel rather than in a strict step-by-step sequence. In these models, information is represented across networks that span—from low-level features to higher-level abstractions—so multiple levels can be active at once. This parallel, distributed activity allows quick perception, robustness to partial damage, and the ability for top-down feedback from higher levels to influence lower-level processing based on context and learning. Because representations are spread across many areas and levels can be co-activated, processing isn't confined to a single area operating at one fixed level. This is why processing can occur at many different levels of representation at the same time.

3. In the video-change detection scenario, why were many changes likely not detected?

- A. All changes were semantically different and easy to notice.
- B. Changes were background and not the focus of attention, so they weren't noticed.**
- C. The video contained too few changes.
- D. Observers were told to ignore the plot.

Change detection in dynamic scenes hinges on where attention goes. Our cognitive system can only monitor a limited amount of information at a time, and attention tends to focus on elements that are task-relevant. In the video scenario, viewers are engaged with the plot and objects in the foreground, so changes happening in the background don't grab attention and don't get consciously processed. This is why many changes go undetected—the background changes fall outside what's being actively monitored, a classic change blindness effect. If changes were easy to notice or directly tied to what participants are watching, detection would be higher, so that option doesn't fit. Having too few changes wouldn't necessarily explain widespread misses, and telling people to ignore the plot would alter what gets attended to in a way that isn't described by the scenario.

4. Place cells are neurons located in which brain region, and what is their role?

A. Amygdala

B. Hippocampus; fire for specific locations and support spatial memory/navigation

C. Cerebellum

D. Prefrontal cortex

Place cells are neurons in the hippocampus that become active when an animal is in a specific location, forming a neural map of the environment. This spatial firing pattern supports spatial memory and navigation, helping the organism know where it is and where to go. The hippocampus is the brain region most closely tied to creating and using this kind of spatial map, which is why place cells are described as residing there and encoding particular locations to guide movement and memory for where things are. Other regions play different roles: the amygdala processes emotion, especially fear; the cerebellum coordinates movement; and the prefrontal cortex handles planning and higher-order decision-making.

5. Which statement best describes how attention spreads after selecting part of an object?

A. It remains limited to the feature

B. It is suppressed

C. It spreads to unrelated objects

D. It spreads to the whole object

When attention is directed to a part of an object, it tends to expand to the entire object. This object-based spreading means that once you lock onto one portion, processing is facilitated for other parts of the same object as well, making the whole object a unit of attentional selection. Classic findings in this area show faster, easier processing for targets that appear anywhere on the attended object compared to targets on a different object at the same distance, indicating that attention has effectively enveloped the entire object. So, attention isn't confined just to the specific feature you focused on, nor is it suppressed or dragged onto unrelated objects. It expands to the whole object, which is why the statement describing spread to the entire object is the best fit.

6. A purely bottom-up visual perception system would have difficulty with which task?

- A. Detecting color discriminations under stable lighting.
- B. Depth perception from binocular disparity.
- C. Identifying the final letter when the bottom piece of the letter E is obscured.**
- D. Perceiving motion in a simple scene.

Purely bottom-up vision relies entirely on the information available in the retinal input, building up from basic features to more complex objects without using prior knowledge or expectations to fill in gaps. When part of a stimulus is hidden, this approach struggles because there's not enough visible information to confidently identify the object without some top-down inference. The task with an obscured bottom part of the letter E requires you to infer what isn't seen based on knowledge of usual letter shapes. Recognizing the intended letter from incomplete input hinges on using prior knowledge about letter forms, not just local visual features. A bottom-up system would have trouble filling in the missing piece on its own, making this task the hardest for a purely bottom-up approach. The other tasks depend on cues that can be extracted from the visible stimulus without needing such filling-in. Color discrimination under stable lighting can be done from the wavelength information presented by the scene. Depth from binocular disparity uses differences between the two eyes' views to compute depth directly from the sensory input. Motion perception in a simple scene can be driven by motion detectors that respond to movement in the input, relatively independent of prior expectations.

7. In anatomical terminology, which term means toward the back or top of the body?

- A. Medial
- B. Lateral
- C. Ventral
- D. Dorsal**

Dorsal is the term that describes the backside of the body, or the upper/ dorsal surface. In humans this means the back, and in four-legged animals it refers to the top side. So moving toward the back or toward the upper surface is moving dorsally. Medial points toward the midline of the body, lateral toward the sides, and ventral toward the belly or front. For example, the spine lies along the dorsal aspect while the chest is on the ventral side.

8. The dorsal visual stream supports which combination of functions?

- A. What and Where
- B. Where and How**
- C. What and How
- D. Color and Motion

The main idea here is that the dorsal visual stream is specialized for processing spatial information and guiding actions. It's often described as the "where" and "how" pathway because it helps you determine where objects are in space and how to interact with them—planning and executing movements like reaching, grasping, or coordinating your actions with what you see. That's why the best answer is the combination of Where and How. The dorsal stream runs from early visual areas toward the parietal cortex and interfaces with motor planning, so it's tuned to spatial relationships and the control of movements. In contrast, color and object identity are more tied to the ventral stream, which is about recognizing what things are. So color is not a hallmark of the dorsal pathway, and while motion can involve dorsal processing, the classic pairing of the dorsal route is Where and How, not Color and Motion.

9. Introspection had several problems. One problem was that the method had

- A. The method had perfect replicability
- B. The method had poor replicability**
- C. The results were identical across researchers
- D. The method was easily standardized

Reliability of a method is crucial for scientific findings, and introspection struggles here because reports of inner experiences are highly subjective and can vary from person to person and even from moment to moment for the same person. Because there's no objective standard to verify what someone genuinely felt or thought, different researchers or different training in reporting those experiences can produce inconsistent descriptions of the same stimulus. This lack of independent verification and high variability across observers makes the results hard to replicate, which is exactly what researchers found problematic with introspection. If it were easily replicated or produced identical results across researchers, the method would be much more trustworthy, but the subjective nature of introspective reporting makes standardization and replication difficult.

10. All of the following are factors that make visual perception a hard problem, EXCEPT

- A. Light sources are most often located above objects.**
- B. Occlusion
- C. Shape variability with motion
- D. Noise in the visual scene

Perception is hard because the retinal image is a fragile, two-dimensional snapshot of a three-dimensional world, which leaves a lot of ambiguity and noise to resolve. Occlusion means parts of objects disappear from view, so the brain must infer the hidden shapes based on context and prior experience—amodal completion helps explain how we still perceive a coherent whole. As objects or our viewpoint move, appearance can change dramatically; the visual system must maintain a stable sense of identity across transformations, relying on invariants and temporal continuity to achieve a consistent interpretation. Noise in the scene—random fluctuations and low contrast—reduces reliable information, so the brain combines evidence across space, time, and multiple cues to recover the underlying structure. The idea that light sources are located above objects, while it can affect shading cues, does not inherently produce the same kind of fundamental ambiguity, and humans use multiple cues and prior knowledge to compensate. For that reason, lighting above objects is the exception that does not contribute to the core difficulty of visual perception.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

<https://cognitivepsych414exam1.examzify.com>

We wish you the very best on your exam journey. You've got this!

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