EPPP Biological Bases of Behavior Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

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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. Don't worry about getting everything right, 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, and take breaks to retain information better.

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.

7. Use Other Tools

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

1. The cerebellum plays a key role in which of the following functions?

A. Language processing

B. Memory formation

C. Coordination of movement

D. Emotional responses

2. Which class of drugs is known for increasing norepinephrine and dopamine in the prefrontal cortex and is used in treating ADHD?

A. Anticonvulsants

B. Psychostimulants

C. Beta Blockers

D. Neuroleptics

3. Temporary immediate recall of information for processing, typically lasting less than a minute, is known as?

A. Sensory Memory

B. Short-term Memory

C. Long-term Memory

D. Immediate Memory

4. Aphasia differs from which of the following conditions?

A. Motor Neuron Disease

B. Developmental delay

C. Dyslexia

D. Agnosia

5. Which term refers to how drugs impact the body?

A. Pharmacokinetics

B. Pharmacodynamics

C. Metabolism

D. Bioavailability

6. Which type of memory is often described as the storage for long-lasting information that can be needed for future use?

A. Short-term Memory

B. Working Memory

C. Episodic Memory

D. Long-term Memory

7. What type of dementia is caused by a decay of neurons in the frontal and temporal cortex resulting in personality changes and language difficulties?

A. Alzheimer's Disease

B. Pick's Disease

C. Cerebrovascular Disease

D. Huntington's Disease

8. In which type of dementia do patients typically experience a decline in executive functioning?

A. Dementia with Lewy Bodies

B. Pick's Disease

C. Alzheimer's Disease

D. Vascular Dementia

9. What medical condition is characterized by poor blood flow to a part of the brain leading to cell death?

A. Concussion

B. Stroke

C. Traumatic Brain Injury

D. Cerebral Aneurysm

10. What is the role of the thalamus in the brain?

A. Emotion regulation

B. Sensory relay hub

C. Memory storage

D. Movement control

Answers

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

Explanations

1. The cerebellum plays a key role in which of the following functions?

A. Language processing

B. Memory formation

C. Coordination of movement

D. Emotional responses

The cerebellum primarily functions to coordinate voluntary movements, maintaining balance and posture, and refining motor activity. It plays a critical role in integrating sensory information with motor commands to produce smooth, precise movements. This includes functions such as timing, rhythm, and the ability to adjust movements based on sensory feedback. While the other options presented do relate to various functions of the brain, they are not central to what the cerebellum does. Language processing is largely associated with areas in the cerebral cortex, particularly in the left hemisphere for most people. Memory formation is heavily linked to structures such as the hippocampus and other areas involved in limbic system function. Emotional responses are primarily mediated by the limbic system, including the amygdala, rather than the cerebellum. This distinction highlights why coordination of movement is the core function associated with the cerebellum.

2. Which class of drugs is known for increasing norepinephrine and dopamine in the prefrontal cortex and is used in treating ADHD?

A. Anticonvulsants

B. Psychostimulants

C. Beta Blockers

D. Neuroleptics

The class of drugs known for increasing norepinephrine and dopamine levels in the prefrontal cortex and commonly used to treat Attention-Deficit/Hyperactivity Disorder (ADHD) are psychostimulants. These medications work by enhancing neurotransmitter activity, primarily by increasing the release of norepinephrine and dopamine, which are critical in regulating attention, impulse control, and overall cognitive function. Psychostimulants, such as methylphenidate and amphetamine, are particularly effective in managing ADHD symptoms because they target areas of the brain responsible for attention and executive functions. By boosting the availability of these neurotransmitters, psychostimulants help improve focus, reduce hyperactivity, and facilitate better organizational skills in individuals diagnosed with ADHD. In contrast, other drug classes, such as anticonvulsants, beta blockers, and neuroleptics, do not primarily target norepinephrine and dopamine in the same manner or are used for different conditions. Anticonvulsants are primarily used to treat seizure disorders, beta blockers are often used for cardiovascular issues and anxiety, and neuroleptics are mainly used to manage psychosis and other severe mental health disorders. Thus, psychostimulants are distinctly recognized for their role in ADHD treatment through their

3. Temporary immediate recall of information for processing, typically lasting less than a minute, is known as?

A. Sensory Memory

B. Short-term Memory

C. Long-term Memory

D. Immediate Memory

The correct answer is short-term memory. This type of memory is characterized by its ability to hold a limited amount of information for a brief period, typically around 20 to 30 seconds, which aligns well with the description provided in the question. It allows for the temporary storage of information that is necessary for immediate tasks, such as remembering a phone number long enough to dial it. Short-term memory is distinct from sensory memory, which involves the brief retention of sensory information after the initial stimulus has ended. Sensory memory lasts for only a fraction of a second to a couple of seconds, serving as the initial stage of memory processing. Long-term memory, on the other hand, is where information is stored for extended periods, sometimes a lifetime, and involves more complex encoding processes that allow for the consolidation of experiences and knowledge. Immediate memory might seem similar, as it does refer to the retention of information for a short period but is generally used interchangeably with short-term memory. However, short-term memory is the more widely accepted term in cognitive psychology for this function within memory systems.

4. Aphasia differs from which of the following conditions?

A. Motor Neuron Disease

B. Developmental delay

C. Dyslexia

D. Agnosia

Aphasia is a language disorder that results from damage to specific areas of the brain, particularly those involved in speech and language processing. It primarily affects a person's ability to communicate, which can include difficulties in speaking, understanding, reading, or writing. The hallmark feature of aphasia is that it arises from neurological damage rather than developmental issues or motor function impairments. In contrast, developmental delay refers to a wider range of conditions that impede a child's physical, learning, language, or behavioral growth. The term encompasses various developmental issues that are present from childhood, which can affect multiple areas including cognitive abilities and motor skills. Since aphasia specifically relates to acquired language impairments often occurring post-development, it is distinct from developmental delay, which is not necessarily a result of brain injury or damage incurred later in life. While all the other conditions listed (motor neuron disease, dyslexia, and agnosia) involve aspects related to neurological functioning or specific language processing deficits, they do not directly embody the same characteristics or implications as aphasia. Motor neuron disease affects muscle control and strength rather than language. Dyslexia primarily involves difficulties in reading and language processing from early development rather than an acquired impairment. Agnosia is a condition where the individual has difficulty recognizing objects

5. Which term refers to how drugs impact the body?

A. Pharmacokinetics

B. Pharmacodynamics

C. Metabolism

D. Bioavailability

The term that refers to how drugs impact the body is pharmacodynamics. This concept encompasses the study of the effects of a drug on biological systems, including its mechanism of action, the physiological effects it produces, and the relationship between drug concentration and effect. Essentially, pharmacodynamics addresses what the drug does to the body, including interactions with receptors, enzyme systems, and other targets within the organism that lead to therapeutic outcomes or side effects. Understanding pharmacodynamics is crucial for predicting how a drug will behave and the potential responses in different individuals. This also includes aspects such as the drug's therapeutic window, efficacy, and potency, which are essential for determining appropriate dosages and treatment plans. In contrast, pharmacokinetics refers to how the body affects a drug, including absorption, distribution, metabolism, and excretion, while metabolism specifically pertains to the biochemical processes that change a drug into a more excretable form. Bioavailability relates to the proportion of a drug that enters the systemic circulation intact, which is an important factor in pharmacokinetics but does not directly address the effects of the drug itself on the body. Thus, pharmacodynamics is the most appropriate term for describing how drugs impact bodily functions.

6. Which type of memory is often described as the storage for long-lasting information that can be needed for future use?

A. Short-term Memory

B. Working Memory

C. Episodic Memory

D. Long-term Memory

The correct choice is long-term memory because it refers to the system in which we store information over extended periods, ranging from days to a lifetime. Long-term memory is essential for retaining knowledge, skills, experiences, and other information that we can access in the future. Unlike short-term memory, which holds information temporarily for immediate use, long-term memory is capable of storing vast amounts of information that can be recalled even years later. This type of memory is crucial for life experiences and learning, allowing individuals to build knowledge and develop skills over time. In contrast, short-term memory is limited in capacity and duration, typically retaining information for about 20 to 30 seconds without rehearsal. Working memory, often related to short-term memory, involves actively manipulating information but is also not designed for long-term storage. Episodic memory, while a type of long-term memory specifically focused on personal experiences and events, does not encompass all forms of long-lasting information. Therefore, long-term memory is the most comprehensive term regarding the storage of information needed for future use.

7. What type of dementia is caused by a decay of neurons in the frontal and temporal cortex resulting in personality changes and language difficulties?

A. Alzheimer's Disease

B. Pick's Disease

C. Cerebrovascular Disease

D. Huntington's Disease

The type of dementia caused by the decay of neurons in the frontal and temporal cortex, leading to personality changes and language difficulties, is associated with Pick's Disease. This neurodegenerative disorder is specifically characterized by significant atrophy in these brain regions, which are critical for behavior regulation and language processing. In Pick's Disease, the decline in frontal lobe function often manifests as marked changes in personality, social behavior, and emotional regulation, while the involvement of the temporal lobe contributes to difficulties in language comprehension and production. These symptoms distinguish Pick's Disease from other types of dementia, as it has a distinct impact on social cognition and communication abilities, especially in its early stages. Understanding the underlying biology of Pick's Disease helps clarify the nature of the symptoms and the progression of the disorder, showcasing the relationship between brain structure degeneration and functional consequences in behavior and language processing.

8. In which type of dementia do patients typically experience a decline in executive functioning?

A. Dementia with Lewy Bodies

B. Pick's Disease

C. Alzheimer's Disease

D. Vascular Dementia

Pick's Disease, also known as frontotemporal dementia, primarily affects the frontal and temporal lobes of the brain, leading to significant changes in personality, behavior, and executive functioning. Patients with this type of dementia often show marked impairments in their ability to plan, organize, and make decisions due to the degeneration of areas involved in these cognitive processes. Executive functioning encompasses skills like problem-solving, abstract thinking, and the ability to manage time and space effectively. In Pick's Disease, these functions degrade as the disease progresses, which can manifest as inappropriate social behavior, a lack of insight, or decreased motivation. It is distinct from other forms of dementia, which may affect memory or language more prominently. Other dementias such as Alzheimer's Disease and Vascular Dementia exhibit different cognitive profiles. While Alzheimer's primarily impacts memory initially, executive functioning may decline later in the disease. Similarly, Vascular Dementia often presents with mixed symptoms, including cognitive decline and memory problems, but it may not display the same degree of executive dysfunction as prominently as Pick's Disease. Therefore, the unique impact on executive functioning makes Pick's Disease the correct answer in this context.

9. What medical condition is characterized by poor blood flow to a part of the brain leading to cell death?

A. Concussion

B. Stroke

C. Traumatic Brain Injury

D. Cerebral Aneurysm

The medical condition characterized by poor blood flow to a part of the brain, leading to cell death, is a stroke. A stroke occurs when there is an interruption of blood supply to the brain, which can happen either due to a blockage in a blood vessel (ischemic stroke) or the rupture of a blood vessel (hemorrhagic stroke). Without adequate blood flow, brain cells begin to die, potentially resulting in loss of function in the areas controlled by that part of the brain. Understanding the etiology of strokes is critical as it can lead to significant neurological deficits, depending on the duration and extent of blood flow interruption. Immediate medical attention is often required to minimize brain damage and facilitate recovery. Concussions and traumatic brain injuries involve different mechanisms, such as impact trauma, rather than blood flow issues. Although cerebral aneurysms can lead to hemorrhagic strokes when they rupture, they specifically refer to the dilation of a blood vessel and not the general condition of poor blood flow leading to cell death.

10. What is the role of the thalamus in the brain?

A. Emotion regulation

B. Sensory relay hub

C. Memory storage

D. Movement control

The thalamus serves a crucial function as a sensory relay hub in the brain. It is located at the top of the brainstem and acts as a critical structure within the central nervous system, specifically in the processing of sensory information. The thalamus receives incoming sensory signals from various modalities, including vision, hearing, touch, taste, and pain, before transmitting them to the appropriate areas of the cerebral cortex for further processing and interpretation. This relay function is essential because it ensures that sensory inputs are efficiently processed and integrated, allowing us to have coherent perceptions of our environment. The thalamus also plays a role in filtering sensory information, helping to prioritize what sensory information gets to the cortex, which is vital for focused attention and response. While the thalamus does interact with other brain areas that are involved in emotion, memory, and movement, its primary role is centered on being a hub for sensory information, making it integral to our conscious experience of the world around us.

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://eppbiobasesofbehavior.examzify.com

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