

AQA BIOPSYCHOLOGY PRACTICE EXAM (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

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THE FULL VERSION STUDY GUIDE**

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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. Which part of the brain is central to basic survival functions?**
 - A. Cerebellum
 - B. Hypothalamus
 - C. Hippocampus
 - D. Frontal lobe

- 2. Which part of the brain is primarily affected when a person has difficulty understanding language?**
 - A. Frontal lobe
 - B. Cerebellum
 - C. Wernicke's area
 - D. Parietal lobe

- 3. Which of the following best describes neurotransmitter imbalances?**
 - A. Linked solely to genetic factors
 - B. Not related to behavior
 - C. Can lead to various mental health disorders
 - D. Only influenced by environmental factors

- 4. What process describes how individuals with favorable traits are more likely to survive and reproduce?**
 - A. Natural selection
 - B. Adaptation
 - C. Genetic drift
 - D. Mimicry

- 5. How does the myelin sheath affect neural conduction?**
 - A. It insulates axons and decreases impulse speed
 - B. It inhibits electrical impulses along the neuron
 - C. It insulates axons and increases impulse speed
 - D. It connects neurons directly without any insulation

- 6. What role does the thalamus play in sensory processing?**
- A. It initiates motor responses.
 - B. It acts as a relay station for sensory information.
 - C. It produces hormones.
 - D. It regulates sleep cycles.
- 7. What structure serves as the link between the two hemispheres of the brain?**
- A. Corpus callosum
 - B. Cerebellum
 - C. Thalamus
 - D. Hippocampus
- 8. Which type of neuron is responsible for transmitting signals from sensory receptors to the central nervous system?**
- A. Motor neurons
 - B. Interneurons
 - C. Sensory neurons
 - D. Relay neurons
- 9. Which components make up the structure of a neuron?**
- A. Dendrites, cell membrane, and glial cells
 - B. Cell body, dendrites, axon, and terminal buttons
 - C. Axon, neurotransmitters, and synapse
 - D. Soma, myelin sheath, and connective tissues
- 10. Which of the following can be a consequence of dopamine imbalance?**
- A. Heightened sense of reward.
 - B. Increased tolerance to pain.
 - C. Mood disorders like depression and addiction.
 - D. Improved cognitive abilities.

Answers

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

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Explanations

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1. Which part of the brain is central to basic survival functions?

- A. Cerebellum
- B. Hypothalamus**
- C. Hippocampus
- D. Frontal lobe

The hypothalamus is crucial for regulating basic survival functions in the body. It plays a vital role in homeostasis, which includes maintaining temperature, hunger, thirst, and circadian rhythms. Additionally, the hypothalamus controls the autonomic nervous system and endocrine system by regulating the release of hormones from the pituitary gland. This involvement in hormonal balance and the control of visceral functions makes it essential for survival. In contrast, the cerebellum primarily coordinates voluntary movements and balance, which, while important for function, are not directly tied to basic survival. The hippocampus is mainly involved in memory formation and spatial navigation, not directly in survival functions. The frontal lobe is important for higher cognitive functions, such as decision-making and problem-solving, but it does not directly manage the essential biological processes necessary for survival. Thus, the hypothalamus is correctly identified as the part of the brain most central to basic survival functions.

2. Which part of the brain is primarily affected when a person has difficulty understanding language?

- A. Frontal lobe
- B. Cerebellum
- C. Wernicke's area**
- D. Parietal lobe

Wernicke's area is primarily responsible for language comprehension. It is located in the left hemisphere of the brain, specifically in the posterior part of the superior temporal gyrus. When this area is damaged, it can lead to Wernicke's aphasia, a condition characterized by difficulties in understanding spoken and written language, although the person's ability to produce language may remain intact. This condition highlights the critical role that Wernicke's area plays in processing and making sense of language, making it the key region to consider when discussing challenges with language comprehension.

3. Which of the following best describes neurotransmitter imbalances?

- A. Linked solely to genetic factors
- B. Not related to behavior
- C. Can lead to various mental health disorders**
- D. Only influenced by environmental factors

Neurotransmitter imbalances are indeed best described by the assertion that they can lead to various mental health disorders. Neurotransmitters are chemical messengers in the brain that play crucial roles in regulating mood, cognition, and behavior. When there is an imbalance—whether it's too much or too little of certain neurotransmitters—it can significantly affect mental health. For example, low levels of serotonin are commonly associated with depression, while irregularities in dopamine levels have been linked to conditions like schizophrenia and bipolar disorder. This connection to mental health disorders highlights the importance of neurotransmitters in the biopsychological understanding of behavior and mental states. Studying these imbalances helps researchers and clinicians understand the biological underpinnings of various psychological conditions, ultimately guiding effective treatment approaches.

4. What process describes how individuals with favorable traits are more likely to survive and reproduce?

A. Natural selection

B. Adaptation

C. Genetic drift

D. Mimicry

Natural selection is the process by which individuals that possess favorable traits are more likely to survive and reproduce in their environments. This concept was famously articulated by Charles Darwin and is a fundamental mechanism of evolution. In natural selection, traits that enhance survival and reproductive success become more common in subsequent generations. For instance, an animal that has a camouflage trait may be less likely to be preyed upon, allowing it to live longer and reproduce more than those without such a trait. Over time, this can lead to a population that is better adapted to its environment. The other concepts, while related to evolution, do not primarily describe this specific survival and reproduction mechanism. Adaptation refers to the changes that occur in a species over time in response to environmental pressures, genetic drift is a mechanism by which allele frequencies in a population change due to random sampling, and mimicry involves one organism evolving to resemble another for protection or other advantages. None of these processes specifically highlight the mechanism of advantageous traits leading to increased survival and reproductive success in the way natural selection does.

5. How does the myelin sheath affect neural conduction?

A. It insulates axons and decreases impulse speed

B. It inhibits electrical impulses along the neuron

C. It insulates axons and increases impulse speed

D. It connects neurons directly without any insulation

The myelin sheath plays a crucial role in facilitating efficient neural conduction. It is a fatty layer that encases the axons of many neurons, providing insulation. This insulation reduces the loss of electrical charge as the action potential travels along the axon, allowing the electrical impulses to move more rapidly and efficiently from one node of Ranvier to the next. This saltatory conduction, which occurs at the nodes where the myelin sheath is absent, enables the impulses to leapfrog along the axon, significantly increasing the speed of neural transmission. As a result, neurons can communicate more quickly, which is essential for proper functioning in the nervous system, particularly in processes that require fast reflexes or rapid signal processing. Thus, the correct choice emphasizes the insulating properties of the myelin sheath and its contribution to increasing the speed of neural impulses.

6. What role does the thalamus play in sensory processing?

A. It initiates motor responses.

B. It acts as a relay station for sensory information.

C. It produces hormones.

D. It regulates sleep cycles.

The thalamus plays a crucial role in sensory processing by acting as a relay station for sensory information before it reaches the cerebral cortex, where perception occurs. All major sensory pathways, except for the sense of smell, pass through the thalamus. This structure helps in filtering and processing sensory inputs, allowing the brain to prioritize which stimuli are most important for our immediate perception and response. For instance, when visual or auditory stimuli are detected, they are transmitted to the thalamus, which then relays that information to the appropriate areas of the cortex for further processing. This makes the thalamus central to integrating sensory experiences and ensuring that the brain receives organized and coherent sensory information, which is fundamental for perception and reaction to the environment.

7. What structure serves as the link between the two hemispheres of the brain?

- A. Corpus callosum**
- B. Cerebellum
- C. Thalamus
- D. Hippocampus

The corpus callosum is the structure that serves as the primary link between the two hemispheres of the brain. It is a thick band of neural fibers that facilitates communication between the left and right hemispheres, allowing for the integration of sensory, motor, and cognitive functions. This transfer of information is crucial for coordinated activity and holistic processing, as the two hemispheres often specialize in different functions. For instance, the left hemisphere is typically associated with language and analytical tasks, while the right hemisphere is more involved in spatial and creative tasks. The other structures listed, while important for various brain functions, do not serve this specific role. The cerebellum is mainly involved in coordination and balance, the thalamus acts as a relay station for sensory information to the cerebral cortex, and the hippocampus plays a key role in memory formation and spatial navigation. None of these structures connect the left and right hemispheres, highlighting the unique role of the corpus callosum in interhemispheric communication.

8. Which type of neuron is responsible for transmitting signals from sensory receptors to the central nervous system?

- A. Motor neurons
- B. Interneurons
- C. Sensory neurons**
- D. Relay neurons

The type of neuron responsible for transmitting signals from sensory receptors to the central nervous system is sensory neurons. These neurons play a crucial role in the nervous system by carrying information from sensory receptors, such as those for touch, taste, hearing, sight, and smell, to the brain and spinal cord, where it can be processed and interpreted. Sensory neurons are specialized to detect stimuli in the environment and convert those stimuli into electrical impulses that can be transmitted along their axons. Once these signals reach the central nervous system, they allow for the perception of sensory information, enabling responses to the environment. In contrast, motor neurons are involved in transmitting signals from the central nervous system to muscles and glands, facilitating movement and action. Interneurons primarily function as connectors between sensory and motor neurons within the central nervous system, playing pivotal roles in reflexes and complex processing. Relay neurons, often referred to in the context of local processing within the central nervous system, also transmit signals primarily between neurons but do not directly receive signals from sensory receptors. Thus, sensory neurons are specifically designated for carrying information about sensory input to the brain and spinal cord.

9. Which components make up the structure of a neuron?

- A. Dendrites, cell membrane, and glial cells
- B. Cell body, dendrites, axon, and terminal buttons**
- C. Axon, neurotransmitters, and synapse
- D. Soma, myelin sheath, and connective tissues

The correct choice highlights the essential components of a neuron, which include the cell body, dendrites, axon, and terminal buttons. The cell body, also known as the soma, contains the nucleus and is responsible for maintaining the life of the neuron. Dendrites are the branching structures that receive signals from other neurons, allowing for communication within the nervous system. The axon is a long, thin structure that transmits electrical impulses away from the cell body to other neurons or muscle cells. Terminal buttons, located at the end of the axon, are responsible for releasing neurotransmitters into the synapse, facilitating communication between neurons. This combination of parts is fundamental to the functioning of neurons and the overall nervous system, as they work together to transmit information effectively throughout the body.

10. Which of the following can be a consequence of dopamine imbalance?

- A. Heightened sense of reward.
- B. Increased tolerance to pain.
- C. Mood disorders like depression and addiction.**
- D. Improved cognitive abilities.

Dopamine plays a crucial role in the brain's reward pathways, influencing emotions, motivation, and pleasure. An imbalance in dopamine levels can lead to significant psychological consequences. For instance, low levels of dopamine are associated with mood disorders such as depression, where individuals may experience a lack of motivation and pleasure in activities that they previously enjoyed. Conversely, an excess of dopamine can contribute to addictive behaviors, as seen in substance use disorders, where the pursuit of pleasure dominates decision-making processes. Thus, mood disorders like depression and addiction are direct consequences of how dopamine levels affect emotional well-being and behavioral patterns. Other options may describe effects associated with dopamine activity, but they do not encompass the broad impact on mood and behavior that stems from dopamine imbalance.

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://aqabiopsychology.examzify.com>

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

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