AGRONOMY DEGREE PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://agronomy-degree.examzify.com

Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

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

SAMPLE

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.

SAMPLE

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!

SAMPLE

Questions

SAMPLE

1. What is the goal of chemical pest management?

A. Increase natural predator populations

B. Improve soil health

C. Directly reduce pest populations

D. Enhance crop rotation practices

2. Which specific bacteria is known to fix nitrogen for soybeans?

A. Bradyrhizobium japonicum

B. Bradyrhizobium betae

C. Bradyrhizobium canariense

D. Bradyrhizobium tropiciagri

3. Which term refers to the quantity of marketable plant parts?

A. Economic yield

B. Biological yield

C. Harvest index

D. Biomass

4. Which irrigation system loses the least amount of water to evaporation?

A. Center pivot

B. Flood

C. Drip irrigation

D. Furrow irrigation

5. What is the method called where plants grow in a water and nutrient solution without soil?

A. Hydroponics

B. No-till

C. Conservation farming

D. Strip planting

SAMPLE

6. What term describes the situation when wheat plants bend due to stem weakness or seed head weight?

A. Nodding

B. Weeping

C. Lodging

D. Drooping

7. What is the standard weight (lbs) of a bushel of corn?

A. 50

B. 56

C. 60

D. 65

8. What is the layer of soil that makes up a soil profile called?

A. Horizon

B. Plate

C. Film

D. Sheet

9. Who is recognized as the "father" of the nitrogen fertilizer industry?

A. John Laws

B. Fritz Haber

C. Justus von Liebig

D. Jethro Tull

10. What are solid particles between 0.02 to 2 mm in diameter called?

A. Silt

B. Clay

C. Loam

D. Sand

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. What is the goal of chemical pest management?

A. Increase natural predator populations

B. Improve soil health

C. Directly reduce pest populations

D. Enhance crop rotation practices

The goal of chemical pest management is to directly reduce pest populations. This approach typically involves the application of pesticides or other chemical solutions to target specific pests that threaten agricultural crops or horticultural plants. By using these chemicals, farmers aim to minimize the damage pests can cause, which helps protect yields and maintain the overall health of the crops. Reducing pest populations through chemical means is often a necessary practice in traditional agriculture, especially when pest outbreaks can lead to significant economic losses. The efficiency and speed of chemical pest management make it a useful tool for addressing immediate pest pressures in a way that can be directly measured in terms of effectiveness. While options like increasing natural predator populations, improving soil health, and enhancing crop rotation practices are all important components of integrated pest management strategies and sustainable agriculture, they focus on longer-term ecological balance and agricultural resilience rather than the immediate goal of directly combating pest populations. These practices can complement chemical pest management but don't serve as its primary aim.

2. Which specific bacteria is known to fix nitrogen for soybeans?

A. Bradyrhizobium japonicum

B. Bradyrhizobium betae

C. Bradyrhizobium canariense

D. Bradyrhizobium tropiciagri

The correct choice is associated with Bradyrhizobium japonicum, which is specifically known for its symbiotic relationship with soybean plants (Glycine max). This bacterium establishes root nodules on soybean roots, where it converts atmospheric nitrogen into a form that the plant can use for growth. This process is essential for enhancing soil fertility and improving crop yields. Bradyrhizobium japonicum is particularly well-suited for this interaction due to its efficient nitrogen-fixing abilities, which are beneficial for soybeans, a leguminous plant that thrives on this symbiosis. The relationship not only allows soybeans to access vital nutrients but also contributes to the overall nitrogen content of the soil, benefiting subsequent crops in rotation. In contrast, the other choices, although they belong to the same genus, do not have the same established association with nitrogen fixation in soybeans. Each of them may play roles in different contexts or with different host plants, but none have the specific, well-documented interaction with soybeans that Bradyrhizobium japonicum has. Understanding the specific interactions between plants and nitrogen-fixing bacteria is crucial for agronomy, especially in sustainable agriculture practices.

SAMPLE

3. Which term refers to the quantity of marketable plant parts?

A. Economic yield

B. Biological yield

C. Harvest index

D. Biomass

The term "economic yield" specifically refers to the quantity of marketable plant parts, which are the portions of the plant that can be sold or have value in the market. This can include fruits, seeds, and other plant materials that are harvested and utilized for economic benefit. This concept is crucial in agronomy as it helps farmers and agronomists assess the profitability and sustainability of crops. Economic yield focuses on the products that have direct financial value, as opposed to simply measuring the overall growth of the plant. This allows for a more targeted analysis of agricultural productivity, emphasizing the importance of optimizing the yield of parts that contribute directly to revenue. In contrast, biological yield refers to the total biomass produced by a plant, which includes both marketable and non-marketable parts. The harvest index is a ratio that describes the proportion of economic yield to biological yield and is an important metric for assessing crop efficiency but does not define the quantity itself. Biomass refers more generally to the total mass of living material, without focusing on marketability. Understanding economic yield helps in making informed decisions related to crop production, resource allocation, and overall agricultural management.

4. Which irrigation system loses the least amount of water to evaporation?

A. Center pivot

B. Flood

C. Drip irrigation

D. Furrow irrigation

Drip irrigation is recognized for its efficiency in minimizing water loss due to evaporation. This system delivers water directly to the plant roots through a network of valves, pipes, tubing, and emitters. Because the water is applied in small quantities and localized to the root zone, it reduces the exposure of the water to the air, significantly limiting evaporation losses. In contrast, other systems such as flood irrigation distribute water broadly across the field, making it more susceptible to evaporation before it reaches the roots. Center pivot and furrow irrigation methods also result in some degree of water loss through evaporation, as water is applied to the soil surface, leaving it exposed and vulnerable to evaporative losses. Thus, the precise targeting of water application in drip irrigation not only conserves water but also ensures that plants receive the moisture they need effectively, making it the irrigation method that loses the least amount of water to evaporation.

SAMPLE

5. What is the method called where plants grow in a water and nutrient solution without soil?

A. Hydroponics

B. No-till

C. Conservation farming

D. Strip planting

The method where plants grow in a water and nutrient solution without soil is termed hydroponics. This innovative cultivation technique allows the roots of plants to be directly immersed in a nutrient-rich water solution, which promotes rapid growth and efficient nutrient uptake. Hydroponics offers numerous advantages, including higher yields, year-round production, and the ability to grow in areas with poor soil conditions. In this system, the absence of soil reduces the risk of certain pests and diseases, facilitating a more controlled growing environment. Various hydroponic systems, such as nutrient film technique (NFT), deep water culture (DWC), and aeroponics, illustrate the versatility of this method, enhancing its applicability in both commercial agriculture and home gardening. The other options relate to different agricultural practices that focus on soil management and conservation rather than soilless cultivation.

6. What term describes the situation when wheat plants bend due to stem weakness or seed head weight?

A. Nodding

B. Weeping

C. Lodging

D. Drooping

The term that describes the bending of wheat plants due to stem weakness or the weight of the seed heads is "lodging." This phenomenon often occurs when plants reach maturity and can be affected by several factors such as excess moisture, wind, heavy rainfall, disease, or nutrient imbalances. When wheat lodges, it can lead to difficulties during harvesting and can adversely affect yield and grain quality. Understanding lodging is essential for managing wheat crops effectively, as it highlights the importance of proper agronomic practices, such as selecting resistant varieties, optimizing planting density, and managing nitrogen levels appropriately.

7. What is the standard weight (lbs) of a bushel of corn?

A. 50

B. 56

C. 60

D. 65

The standard weight of a bushel of corn is 56 pounds. This measurement is established by the United States Department of Agriculture (USDA) and is widely accepted in agricultural practices. The bushel is a unit of volume used to measure dry agricultural commodities, and the weight can vary depending on the commodity. For corn, the 56-pound standard reflects the average weight of the grain over time, accounting for moisture content and other factors that might affect density. Understanding this standard is crucial for agronomists and farmers in terms of pricing, yields, and inventory management, ensuring they can accurately assess and compare corn production and sales.

SAMPLE

8. What is the layer of soil that makes up a soil profile called?

A. Horizon

B. Plate

C. Film

D. Sheet

The layer of soil that makes up a soil profile is referred to as a horizon. In soil science, a soil profile consists of different layers that vary in color, texture, composition, and other properties. These layers, or horizons, are categorized mainly into the topsoil, subsoil, and parent material, each playing a crucial role in soil health and function. The top layer, known as the O horizon, typically consists of organic matter and is rich in nutrients. Below this, the A horizon contains mineral soil and more organic material. The various horizons together help determine the soil's ability to support plant growth, hold moisture, and maintain ecological balance. Other terms, such as plate, film, or sheet, do not accurately describe the stratification and specific characteristics of soil layers found in a soil profile, making "horizon" the correct terminology in this context.

9. Who is recognized as the "father" of the nitrogen fertilizer industry?

A. John Laws

B. Fritz Haber

C. Justus von Liebig

D. Jethro Tull

Fritz Haber is recognized as the "father" of the nitrogen fertilizer industry primarily due to his pioneering work on synthesizing ammonia from atmospheric nitrogen and hydrogen, which formed the basis for modern nitrogen fertilizers. This process, known as the Haber-Bosch process, was developed in the early 20th century and revolutionized agricultural production by providing an efficient way to produce fertilizers at scale. The availability of nitrogen fertilizers significantly boosted crop yields and food production globally, making it a critical component in addressing food security in the 20th century and beyond. In contrast, while Justus von Liebig made significant contributions to agricultural chemistry, particularly about nutrient requirements, and is often considered the founder of the science of organic chemistry in agricultural contexts, his work did not specifically revolve around the synthesis of nitrogen fertilizers. Similarly, John Laws and Jethro Tull contributed to agricultural practices and innovations, but their contributions are not directly associated with the nitrogen fertilizer industry as is the case with Haber.

10. What are solid particles between 0.02 to 2 mm in diameter called?

A. Silt

B. Clay

C. Loam

D. Sand

The solid particles that range in diameter from 0.02 to 2 mm are classified as sand. Sand is a key component of soil texture and plays a significant role in determining the physical properties of the soil, such as drainage, aeration, and nutrient-holding capacity. Particles of this size, due to their relatively larger diameter compared to silt and clay, contribute to the sandy texture that influences how water moves through the soil and how well the soil can support plant growth. Sand typically provides good drainage while retaining less moisture than finer particles, which can be beneficial for certain crops and conditions. Understanding these distinctions in soil texture is critical for effective agronomy practices, allowing for better crop management and soil health assessments. The other options refer to different soil particle sizes: clay consists of particles smaller than 0.02 mm, silt falls in the range between 0.002 mm and 0.02 mm, and loam is a mixture of sand, silt, and clay, providing a balance of texture and properties beneficial for cultivation.

SAMPLE

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://agronomy-degree.examzify.com

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

SAMPLE