WJEC DESIGN TECHNOLOGY PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://wjecdesigntech.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. **Which term describes the ability of a material to permanently change in shape?**

   A. Elasticity

   B. Plasticity

   C. Ductility

   D. Fusibility

2. **BSI stands for...**

   A. British Standards Institution

   B. British Standards Institute

   C. British Standards International

   D. Business Standards Institute

3. **Which term would you use to describe the material's ability to permanently change in shape?**

   A. Plasticity

   B. Elasticity

   C. Ductility

   D. Hardness

4. **Which term best describes the material's ability to conduct electricity?**

   A. Electrical conductivity

   B. Conductivity

   C. Tensile strength

   D. Durability

5. **What are the stages of the Product Life Cycle?**

   A. birth, development, saturation, end

   B. start, progress, peak, finish

   C. seed, sprout, blossom, wilt

   D. introduction, growth, maturity, decline

SAMPLE

6. Which jobs use 3D CAD according to the material?

A. Car designers, film creators & house designers

B. Accountants, teachers & lawyers

C. Doctors, nurses & veterinarians

D. Farmers, bakers & journalists

7. Which material is described as hard wearing and durable?

A. PVC.

B. MF.

C. LDPE.

D. HDPE.

8. What is the primary purpose of sanding in wood finishing?

A. To add color

B. To join pieces together

C. To roughen the surface

D. To smooth surfaces before applying coatings

9. Which term describes the ability of a material to bend and then return to its original shape and size?

A. Elasticity

B. Ductility

C. Plasticity

D. Toughness

10. Which term refers to the study of the human body measurements?

A. Ergonomics

B. Anthropometrics

C. CAD

D. CNC

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Which term describes the ability of a material to permanently change in shape?

A. Elasticity

B. Plasticity

C. Ductility

D. Fusibility

Permanently changing shape under stress is called plasticity. When a material deforms and does not spring back after the force is removed, the change is plastic deformation. By contrast, elastic behavior means the material returns to its original shape once the load is removed. Ductility describes how much plastic deformation a material can undergo before it breaks, which is related but not the exact idea of a permanent shape change. Fusibility refers to melting, not deformation under load. So the term that describes the ability to permanently change in shape is plasticity.

2. BSI stands for...

A. British Standards Institution

B. British Standards Institute

C. British Standards International

D. Business Standards Institute

British Standards Institution is the UK's national standards body. The official name uses Institution, not Institute, International, or Business. That's why this choice is the correct one: it reflects the recognized title of the organization that develops and publishes British Standards (the BS standards) and also offers testing, certification, and other services. The other options misspell or misstate the organization's actual name and, as a result, don't correspond to the real body that leads UK standardization.

3. Which term would you use to describe the material's ability to permanently change in shape?

A. Plasticity

B. Elasticity

C. Ductility

D. Hardness

Plasticity is the material's ability to permanently change shape when it is deformed beyond its elastic limit. When stress pushes the structure past the point where it would snap back to its original form, the atoms rearrange in a way that remains even after the load is removed. Elasticity, by contrast, is about temporary deformation that vanishes once the force is removed. Ductility describes how much plastic deformation a material can undergo before it breaks—often linked to being drawn into wires or thin sheets—while hardness concerns resistance to surface indentation and wear, not permanent shape change. So the term that best captures permanent shape change is plasticity.

SAMPLE

4. Which term best describes the material's ability to conduct electricity?

A. Electrical conductivity

B. Conductivity

C. Tensile strength

D. Durability

The main idea here is a material's ability to allow electric current to pass through it. The precise term for that property is electrical conductivity. It describes how easily electrons move when an electric field is applied, with high values indicating good conductors like copper and low values indicating insulators like plastic. The other terms refer to different ideas: tensile strength is about how much pulling force the material can withstand before breaking, and durability is about how well it resists wear and environmental damage. So for describing how well electricity flows through a material, electrical conductivity is the exact, most specific fit.

5. What are the stages of the Product Life Cycle?

A. birth, development, saturation, end

B. start, progress, peak, finish

C. seed, sprout, blossom, wilt

D. introduction, growth, maturity, decline

The stages are introduction, growth, maturity, and decline. When a product is first launched, it's in introduction. Awareness is just beginning, sales are slow, and costs are high from marketing and setup, so profits are often low or negative. In the growth stage, sales climb quickly as more customers learn about the product and adopt it. Profitability improves with economies of scale and stronger brand recognition. Maturity is reached when sales peak and the market becomes saturated. Competition can intensify, prices may pressure, and profits tend to level off as growth slows. Finally, decline happens as demand falls due to changes in preferences, newer technologies, or market shifts. Sales drop, and decisions about continuing or withdrawing the product come into play. Other options use different metaphors or verbs that don't align with the standard four-stage business model, or they don't reflect the typical sequence of lifecycle changes.

6. Which jobs use 3D CAD according to the material?

A. Car designers, film creators & house designers

B. Accountants, teachers & lawyers

C. Doctors, nurses & veterinarians

D. Farmers, bakers & journalists

3D CAD is about creating digital three dimensional models to design and test things before they exist in the real world. The material specifically points out that car designers, film creators, and house designers use 3D CAD to shape and refine products and environments, visualize how they'll look, and check how parts fit together. The other groups aren't focused on creating or manipulating 3D models for design work, so 3D CAD isn't a primary tool for them. Accountants, teachers, and lawyers deal with information, documents, and processes; doctors and nurses use medical tools and imaging; farmers, bakers, and journalists have production or reporting roles with different software. So the group that matches the material's examples of using 3D CAD is the one with car designers, film creators, and house designers.

SAMPLE

7. Which material is described as hard wearing and durable?

A. PVC.

B. MF.

C. LDPE.

D. HDPE.

Hard wearing and durability come from a material that resists abrasion, holds up under repeated use, and withstands environmental factors. Rigid PVC fits this description well: its stiff polymer structure gives good surface hardness and abrasion resistance, so it resists wear over time. It also offers chemical resistance and, with stabilizers, good weathering resistance, helping items last longer in outdoor or damp conditions. That combination makes PVC a common choice for durable, low-maintenance parts like window frames and pipes. By comparison, LDPE is flexible and prone to wear more quickly, while HDPE is tougher but still not as rigid as PVC in typical wear scenarios. Melamine formaldehyde is very hard and heat resistant but can be brittle, which limits its suitability for general wear-heavy use.

8. What is the primary purpose of sanding in wood finishing?

A. To add color

B. To join pieces together

C. To roughen the surface

D. To smooth surfaces before applying coatings

Sanding in wood finishing is about preparing the surface so coatings can be applied smoothly and evenly. It removes tool marks, scratches, and any old finish or dirt, giving you a clean, uniform base. Sanding also creates a tiny amount of tooth, which helps the coating cling and flow better, reducing the chances of blotching or an uneven sheen. By moving through progressively finer grits, you transform a rough surface into one that finishes can lay down evenly and look consistent. The idea isn't to add color or to join pieces together. Nor is its sole purpose to roughen the surface; roughening can happen if you use too coarse grit, but the goal in finishing is to smooth and prepare for coating.

9. Which term describes the ability of a material to bend and then return to its original shape and size?

A. Elasticity

B. Ductility

C. Plasticity

D. Toughness

Elasticity is the property that lets a material bend or deform under load and then return to its original shape when the load is removed. This happens because the internal bonds stretch but don't permanently rearrange, so the deformation is reversible as long as you stay within the elastic limit. That makes elasticity the right term for returning to original shape and size after bending. Ductility involves significant permanent deformation before fracture, not recovery. Plasticity means permanent change in shape. Toughness is about how much energy the material can absorb before cracking, not about recovering shape.

SAMPLE

10. Which term refers to the study of the human body measurements?

A. Ergonomics

B. Anthropometrics

C. CAD

D. CNC

Anthropometrics is the study of human body measurements. It collects data like height, reach, and limb lengths to inform how products and spaces should be sized to fit people. This term specifically refers to measuring the human body, and designers use this data to create comfortable, usable designs. Ergonomics uses that data to design for people, but is the broader field focused on fitting tasks and products to users. CAD and CNC are digital design and manufacturing tools, not studies of body measurements.

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://wjecdesigntech.examzify.com

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

SAMPLE