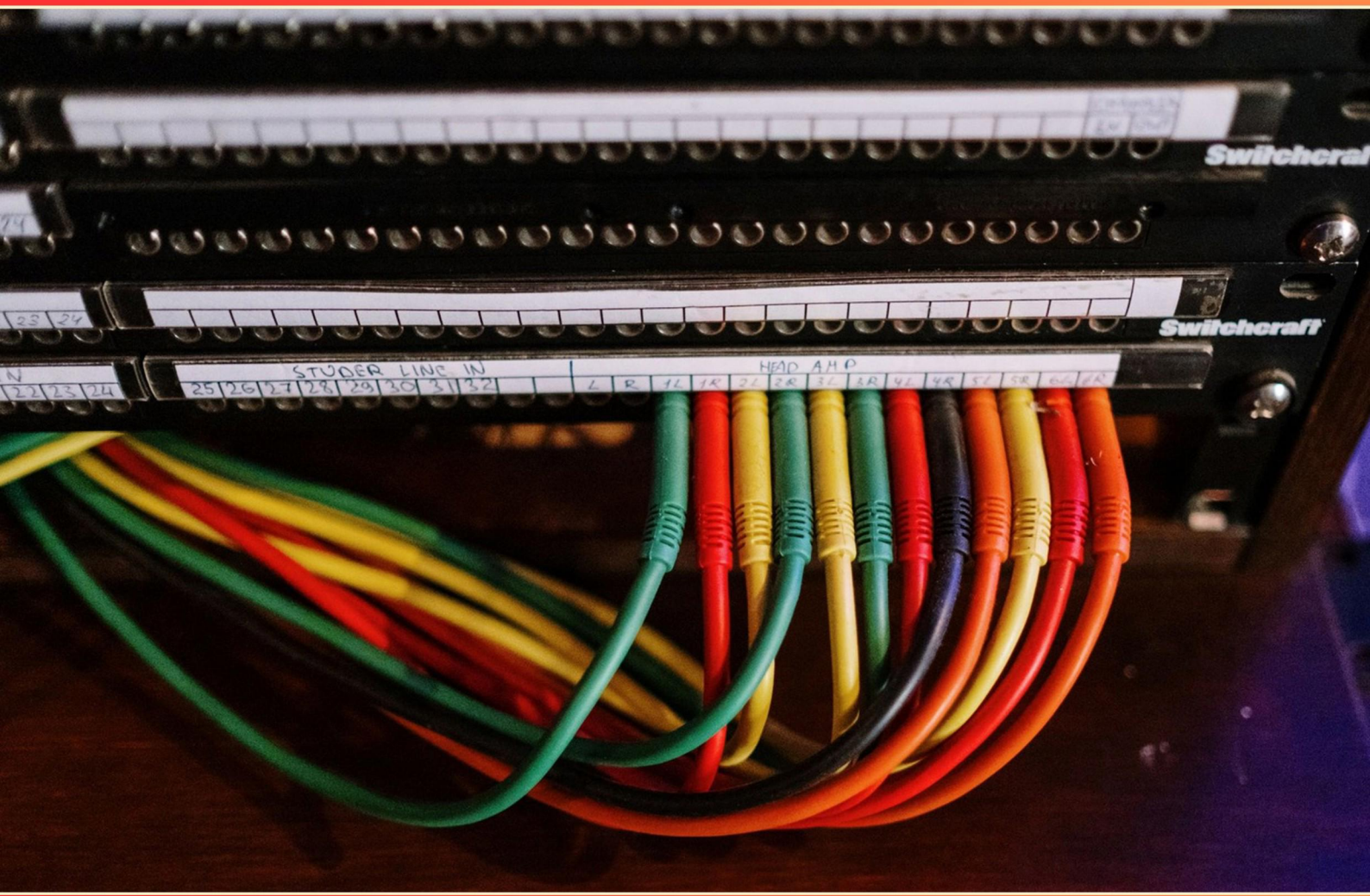
10G SPECIFIC CASE STUDIES PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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.

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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!

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Questions

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1. Which statement best describes the role of 802.1X on 10G switch ports?

A. A mechanism for dynamic ARP inspection.

B. A feature that prioritizes multicast traffic.

C. Port-based network access control; authenticates devices before network access; can place devices in restricted VLANs or deny access.

D. A routing protocol for 10G networks.

2. When did the Nepal Earthquake occur?

A. April 25, 2015

B. April 25, 2014

C. May 25, 2015

D. April 5, 2015

3. What is the annual temperature in Prudhoe Bay?

A. -9 degrees.

B. 0 degrees.

C. 10 degrees.

D. -20 degrees.

4. What is the role of QoS in a leaf-spine fabric experiencing oversubscription?

A. QoS is unnecessary in leaf-spine designs.

B. QoS is used to implement encryption.

C. QoS provides route optimization.

D. QoS helps manage traffic priority and ensure critical applications get bandwidth when oversubscription exists.

5. How many people were injured in the New Zealand earthquake?

A. 75 people

B. 100 people

C. 25 people

D. 50 people

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6. What category was Typhoon Haiyan?

A. Category 4

B. Category 5

C. Category 3

D. Category 6

7. What are typical indicators that a 10G fiber link needs FEC, and when would you enable it?

A. Low BER and short distances; enable FEC on all ports

B. High BER or long-distance links; enable FEC on interfaces that require error correction; reduces retransmissions and improves reliability with modest overhead

C. Only on copper cables

D. FEC is never needed

8. In QoS marking, what is the difference between 802.1p and DSCP, and how do they map to queues?

A. 802.1p is a timer field in Ethernet frames.

B. DSCP is L3 IP header value; 802.1p is a UDP port value.

C. 802.1p is L2 VLAN-priority (0–7); DSCP is L3 IP header value; both map to egress queues according to policy.

D. 802.1p and DSCP are deprecated in modern networks.

9. Which fish species are included in Alaska's fish stocks?

A. Salmon, cod, and crab.

B. Halibut, salmon, and sardines.

C. Salmon and tuna.

D. Cod and shrimp only.

10. Approximately how many tourists visit Alaska each year?

A. 1 million.

B. 2 million.

C. 4 million.

D. 500 thousand.

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Answers

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

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Explanations

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1. Which statement best describes the role of 802.1X on 10G switch ports?

A. A mechanism for dynamic ARP inspection.

B. A feature that prioritizes multicast traffic.

C. Port-based network access control; authenticates devices before network access; can place devices in restricted VLANs or deny access.

D. A routing protocol for 10G networks.

802.1X on 10G switch ports is about port-based network access control. It requires a device to prove its identity before the switch will forward any normal traffic. The switch acts as the gatekeeper and forwards the authentication request to an authentication server (typically a RADIUS server). If the device authenticates successfully, the port is transitioned to an authorized state and traffic is allowed, often with the possibility of assigning the device to a specific VLAN. If authentication fails or times out, the port stays restricted or is denied access, which might place the device in a limited or guest VLAN. This security mechanism is not about ARP inspection, multicast traffic prioritization, or routing protocols. It's specifically about controlling access to the network at the edge by authenticating devices before granting network access.

2. When did the Nepal Earthquake occur?

A. April 25, 2015

B. April 25, 2014

C. May 25, 2015

D. April 5, 2015

Date recall of Nepal's major earthquake. The event happened on April 25, 2015. It was a magnitude 7.8 quake with its epicenter near the Gorkha district, triggering widespread destruction in Kathmandu and across Nepal, and it was followed by significant aftershocks, including a major one on May 12, 2015. The other dates don't match the historical record—2014 is before the event, and the remaining options do not align with the main shock. So the correct date is April 25, 2015.

3. What is the annual temperature in Prudhoe Bay?

A. -9 degrees.

B. 0 degrees.

C. 10 degrees.

D. -20 degrees.

Arctic locations like Prudhoe Bay have long, cold winters and short, cool summers, so the yearly average temperature tends to stay below freezing. The annual mean is the average of daily temperatures over the whole year, and in Prudhoe Bay this mean sits around negative values due to the dominant cold season. The value around -9 degrees aligns with what you'd expect for a continental Arctic coastal climate, capturing the overall cool to cold pattern across the year. The other numbers aren't consistent with that climate: 0 degrees would imply the year averages exactly at freezing, which isn't typical there; 10 degrees would require substantially warmer summers than occur; -20 degrees would be colder than the usual annual average. So the -9 degrees option best reflects Prudhoe Bay's typical yearly climate.

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4. What is the role of QoS in a leaf-spine fabric experiencing oversubscription?

A. QoS is unnecessary in leaf-spine designs.

B. QoS is used to implement encryption.

C. QoS provides route optimization.

D. QoS helps manage traffic priority and ensure critical applications get bandwidth when oversubscription exists.

In a leaf-spine fabric, oversubscription means there isn't enough uplink capacity to carry all the traffic from all servers simultaneously, so congestion can occur. QoS is about controlling how packets are treated when that congestion happens. It classifies traffic into priority levels, marks packets, and uses scheduling, policing, and buffering policies to allocate bandwidth to the most important flows. This ensures latency-sensitive and critical applications get the necessary bandwidth even when the fabric is oversubscribed, preventing those important workloads from being starved and providing more predictable performance. The other options don't fit because QoS isn't about encryption, route optimization, or being unnecessary. It's specifically used to manage traffic priority and protect critical applications by guaranteeing bandwidth during congestion.

5. How many people were injured in the New Zealand earthquake?

A. 75 people

B. 100 people

C. 25 people

D. 50 people

This item tests your recall of a specific reported detail from the New Zealand earthquake. The number of people injured is fifty, as given in the event's official summaries. Fifty reflects a mid-range impact for injuries—enough to indicate notable medical attention was needed without implying far larger-scale harm. The other options would imply a different level of impact than what's documented for this event, so they don't match the official injury tally. In disaster reports, injury counts are reported separately from fatalities and other outcomes, so recalling the exact figure helps you answer these factual questions accurately.

6. What category was Typhoon Haiyan?

A. Category 4

B. Category 5

C. Category 3

D. Category 6

Classification on the Saffir-Simpson scale uses sustained wind speeds to rate tropical cyclones. Typhoon Haiyan reached peak sustained winds of about 195 mph, which places it in the highest category. That category represents catastrophic damage potential and is the top tier of the official scale. The scale stops at Category 5, so there isn't an official Category 6. While Haiyan's central pressure was extremely low, the category is based on wind speed, not pressure. So Haiyan is categorized as Category 5.

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7. What are typical indicators that a 10G fiber link needs FEC, and when would you enable it?

A. Low BER and short distances; enable FEC on all ports

B. High BER or long-distance links; enable FEC on interfaces that require error correction; reduces retransmissions and improves reliability with modest overhead

C. Only on copper cables

D. FEC is never needed

Forward Error Correction is about adding redundancy so the receiver can fix many bit errors without needing retransmission. On a 10G fiber link, errors tend to become more likely as you stretch distance, push the optical budget, or encounter more noise and dispersion. In those cases the link can still carry traffic reliably if the receiver can correct those errors on the fly, which is what FEC does. The typical indicators are a high BER or a long-distance link that challenges the optical budget; these conditions signal that errors will be more frequent and FEC will help. Enabling FEC on interfaces that require error correction gives a more reliable connection and reduces retransmissions, with only a modest overhead from the extra parity data. On short, clean links the overhead isn't usually worth it, and FEC isn't needed.

8. In QoS marking, what is the difference between 802.1p and DSCP, and how do they map to queues?

A. 802.1p is a timer field in Ethernet frames.

B. DSCP is L3 IP header value; 802.1p is a UDP port value.

C. 802.1p is L2 VLAN-priority (0–7); DSCP is L3 IP header value; both map to egress queues according to policy.

D. 802.1p and DSCP are deprecated in modern networks.

In QoS marking, two layers define how traffic is classified and placed into queues. 802.1p is Layer 2: it uses the PCP field in the 802.1Q VLAN tag, a 3-bit value that ranges from 0 to 7. Switches use this to decide which egress queue to put a frame in as it leaves the LAN. DSCP is Layer 3: it sits in the IP header (the DS field) and designates a class of service that suggests a Per-Hop Behavior for the packet across routers. In practice, devices map these marks to specific egress queues or scheduling profiles according to policy, so high-priority traffic—whether labeled at Layer 2 or Layer 3—goes to higher-priority queues and lower-priority traffic to lower ones.

9. Which fish species are included in Alaska's fish stocks?

A. Salmon, cod, and crab.

B. Halibut, salmon, and sardines.

C. Salmon and tuna.

D. Cod and shrimp only.

In fisheries terms, a stock is the population of a species that a region manages for harvest. Alaska's most notable harvests come from salmon, Pacific cod, and crab. Salmon represent a huge finfish stock, cod is a major groundfish stock, and crab (like king or snow crab) is a leading shellfish stock. Together they reflect the three broad, well-known components of Alaska's commercial catches. The other options miss one or more of these key groups or include species not typically treated as major Alaska stocks. For example, while halibut is important, a choice that adds sardines isn't accurate for Alaska's main stocks, and tuna isn't a central Alaska stock. A pairing that omits salmon or pairs cod only with shrimp also leaves out a major Alaska finfish stock or wrong category. So, salmon, cod, and crab best represent the prominent Alaska fish stocks.

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10. Approximately how many tourists visit Alaska each year?

A. 1 million.

B. 2 million.

C. 4 million.

D. 500 thousand.

Alaska typically sees about two million visitors each year. This includes cruise passengers who dock in the state's ports and travelers who come by air or road for a land-based visit. The summer cruise season brings a large portion of traffic, but when you add in all other travelers across the year, the total lands around two million rather than one million or four million. So the option closest to this pattern is the best fit. In unusual years, like during disruptions to travel, numbers can dip, but the normal expectation is near two million.

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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:

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

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