BASIC ENLISTED SUBMARINE SCHOOL (BESS) TEST 2 PRACTICE (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. **Anchor Chain: Which unit is used to measure chain length in the anchor system?**

   A. Feet

   B. Fathoms

   C. Meters

   D. Leagues

2. **How is the Primary Piping Header described?**

   A. Discharge only

   B. Suction only

   C. Pressurized

   D. Vacuum-assisted

3. **Actuating Air Flask (Captain's Air Flask): role?**

   A. Provides a backup to Airbank #3

   B. Provides primary ballast air

   C. Feeds air to crew breathing system

   D. Controls ballast valves hydraulically

4. **The Vital Bus carries loads essential for what?**

   A. Nonessential loads

   B. Lighting only

   C. Propulsion only

   D. Ship's operation and survival

5. **Which directive ensures there is one standing part of each line to the pier?**

   A. Double Up Line ___

   B. Single Up Line ___

   C. Slack Line

   D. Check Line ___

6. **Hull and Backup Valves are what type and used for what?**

   A. Hydraulically operated ball valves used to maintain watertight integrity

   B. Electrically operated globe valves used for fuel control

   C. Manual gate valves used for access hatches

   D. Pneumatically actuated butterfly valves used for ventilation

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7. What does the Main Engine do?

A. Converts steam into electrical power

B. Converts steam into mechanical power

C. Converts steam into heat energy

D. Drives the propeller directly

8. Which statement describes Condition 4 of Small Arms Weapon Conditions?

A. Condition 4 - Magazine empty, safety on, no round chambered

B. Condition 4 - Fully loaded, round chambered, safety on

C. Condition 4 - Loaded magazine, no round in chamber, safety on

D. Condition 4 - Magazine empty, safety off, no round chambered

9. What is the primary purpose of a safety harness?

A. To float in water.

B. To secure the ship's deck traveler.

C. Used to secure personnel while working aloft or over the side.

D. To absorb impact in a collision.

10. What is the function of the Screw?

A. The propeller

B. The boiler

C. The generator

D. The pump

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Answers

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

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Explanations

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1. Anchor Chain: Which unit is used to measure chain length in the anchor system?

A. Feet

B. Fathoms

C. Meters

D. Leagues

Anchor chain length is measured in fathoms. A fathom equals six feet, which makes it easy to express how much chain is laid out relative to water depth and to assess the scope (the ratio of chain length to depth). This standard nautical unit lets sailors quickly estimate whether they have enough chain to hold in varying depths and conditions. While feet or meters can describe length, fathoms are traditionally used for anchor chains because of their practicality and long-standing use in anchoring procedures.

2. How is the Primary Piping Header described?

A. Discharge only

B. Suction only

C. Pressurized

D. Vacuum-assisted

This item tests understanding that the Primary Piping Header handles the suction side of the system. It functions as the intake distribution that feeds the main pumps, pulling coolant from the source and delivering it to the pump inlets. Because it is on the suction side, it is not meant to carry pumped discharge or be a pressurized, downstream path. It's also not a vacuum-assisted line; the system relies on pump suction and pressure to push coolant through the loop, not a pre-existing vacuum. In short, the header is described as suction only because its role is to supply the pumps, not to receive or carry discharged fluid or maintain a high pressure.

3. Actuating Air Flask (Captain's Air Flask): role?

A. Provides a backup to Airbank #3

B. Provides primary ballast air

C. Feeds air to crew breathing system

D. Controls ballast valves hydraulically

The main idea is that submarines keep a redundant, dedicated air source for actuating ballast-control devices. The Captain's Air Flask serves as a reserve supply of compressed air specifically to power the actuation of ballast valves. This ensures ballast-control capabilities remain available even if the primary airbank (Airbank #3) is depleted or unavailable. It's not used for breathing or as the primary ballast air source, and the actuation itself isn't a hydraulic control from this flask. By providing backup air to the ballast system, it helps maintain safe diving and surfacing operations if the main air supply is compromised.

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4. The Vital Bus carries loads essential for what?

A. Nonessential loads

B. Lighting only

C. Propulsion only

D. Ship's operation and survival

The central idea is power allocation for safety-critical functions. The Vital Bus powers systems that must stay energized for the ship to operate and keep the crew alive, even in emergencies. This includes propulsion and steering controls, depth regulation, navigation and communications, life-support, damage-control equipment, and essential sensors. Because these functions are essential for both operating the submarine and ensuring crew survival, they are kept on the Vital Bus. Nonessential loads can be shed when power is limited, and options like lighting-only or propulsion-only miss the broader set of critical systems that must remain powered.

5. Which directive ensures there is one standing part of each line to the pier?

A. Double Up Line ___

B. Single Up Line ___

C. Slack Line

D. Check Line ___

The main idea here is how mooring lines are arranged to create a clear, controlled load path. A single up line means each mooring line has one standing part attached to the pier, with the running part used to secure and adjust the line. This setup keeps the load path simple and predictable, making tensioning and alignment easier and safer. If you had a double up line, there would be two standing parts to the pier, which adds complexity and can complicate how the ship is held in place. A slack line isn't taut enough to control movement, and a check line is used to steady lines rather than to establish the required single standing part to the pier.

6. Hull and Backup Valves are what type and used for what?

A. Hydraulically operated ball valves used to maintain watertight integrity

B. Electrically operated globe valves used for fuel control

C. Manual gate valves used for access hatches

D. Pneumatically actuated butterfly valves used for ventilation

The key idea is how hull and backup valves keep a submarine watertight. These valves are hydraulically operated ball valves. A ball valve uses a spherical ball with a bore that aligns with the flow when open and blocks the passage when turned to the closed position, providing a solid, fast shutoff to prevent water from entering compartments. Hydraulically actuated means the valve is opened or closed by fluid pressure from a hydraulic system, which offers strong, reliable operation and can be controlled remotely or automatically, even in demanding conditions. Having them in the hull allows isolating sections and maintaining the watertight boundary between compartments. The backup valve provides redundancy: if the primary valve fails or is being serviced, the backup can still close to prevent flooding, which is crucial in a submarine's damage-control strategy. Other valve types or actuators described in the choices don't fit this role: globe, gate, and butterfly valves are different designs suited to other applications and don't provide the same combination of rapid, reliable shutoff and robust watertight performance needed for hull closures. Pneumatic actuation is less common for these critical, danger-protection functions compared with hydraulic actuation.

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7. What does the Main Engine do?

A. Converts steam into electrical power

B. Converts steam into mechanical power

C. Converts steam into heat energy

D. Drives the propeller directly

The main idea is that the propulsion engine turns steam energy into rotational mechanical power. In a submarine, steam expands through the turbine, transferring energy to the turbine shaft to produce shaft power. This mechanical power is then sent through the reduction gears to drive the propeller, providing propulsion. It's not about making electricity (that's the generator's job), and it's not about simply turning steam into heat energy—energy is being converted into usable work. The propeller isn't driven directly by the turbine without gears, because the gearing adjusts speed and torque to match what the propeller needs.

8. Which statement describes Condition 4 of Small Arms Weapon Conditions?

A. Condition 4 - Magazine empty, safety on, no round chambered

B. Condition 4 - Fully loaded, round chambered, safety on

C. Condition 4 - Loaded magazine, no round in chamber, safety on

D. Condition 4 - Magazine empty, safety off, no round chambered

Condition 4 describes a safe, ready-but-not-loaded state: there is a loaded magazine in place, no round is in the chamber, and the safety is engaged. This setup minimizes the risk of an accidental discharge while still allowing quick action if a round needs to be fired—insert the loaded magazine and chamber a round when needed, but leave the chamber empty and the safety on to keep it secure. The description that matches this exactly is that: a loaded magazine, no round in the chamber, safety on. The other descriptions either imply a round is already chambered, the safety is off, or there is no loaded magazine, which would place the weapon in a different readiness state.

9. What is the primary purpose of a safety harness?

A. To float in water.

B. To secure the ship's deck traveler.

C. Used to secure personnel while working aloft or over the side.

D. To absorb impact in a collision.

Working at height or near the edge on a submarine creates a real fall risk. A safety harness is a personal protective device worn on the body and connected to a secure anchor point with a tether or lifeline. Its main job is to secure the wearer and arrest a fall, keeping them attached so they can be worked safely or rescued. It isn't about floating on water, which is the job of a life jacket, nor is it about securing deck equipment or absorbing impact from a collision—those are different systems.

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10. What is the function of the Screw?

A. The propeller

B. The boiler

C. The generator

D. The pump

Propulsion is what the Screw does. In submarine terminology, the Screw is the propeller. When it spins, it pushes water backward, creating a forward thrust that moves the submarine through the water. The speed of rotation and the blade pitch determine how much thrust you get and how fast you go. This is different from a boiler (which makes steam to drive engines), a generator (which makes electricity), or a pump (which moves liquids for cooling, ballast, etc.). So the Screw's job is to provide forward motion by turning energy into thrust with the propeller.

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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:

https://bess2.examzify.com

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

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