

Question Type: Toss-up
Category: Biology
Question Format: Multiple Choice

Question:
What is the world's largest fish?

Answer W:
Bluefin Tuna

Answer X:
Swordfish

Answer Y:
Great White Shark

Answer Z:
Whale Shark

Answer: Z

Question Type: Toss Up
Category: Biology
Question Format: Multiple Choice

Question:
What is it called when a duck smoothes its feathers?

Answer W:
separation

Answer X:
spurning

Answer Y:
preening

Answer Z:
expansion

Answer: Y

Question Type: Toss-up
Category: Biology
Question Format: Multiple Choice

Question:

Which San Francisco Bay Area fish is used as an indicator species for the Estuaries health?

Answer W:

Delta Smelt

Answer X:

Delta Tuna

Answer Y:

Delta Bass

Answer Z:

Delta Egret

Correct Answer: W

Question Type: Bonus
Category: Marine Economics
Question Format: Multiple Choice

Question:

About how much of the San Francisco Bay has been filled?

Answer W:

1/3

Answer X:

Less than 1/4

Answer Y:

Over 1/2

Answer Z:

None of the above

Answer: W

Question Type: Bonus
Category: Marine Economics
Question Format: Short Answer

Question:

Why are the U.S. Army Corps of Engineers authorized to build dams?

Answer: So they can manage California's water and plan for future needs.

Question Type: Bonus
Category: Marine Economics
Question Format: Short Answer

Question:

What are the two main uses of delta water?

Answer: Irrigation and drinking water.

Question Type: Bonus
Category: Marine Economics
Question Format: Multiple Choice

Question:

About how many cubic yards of material are dredged from the San Francisco's Delta each year?

Answer W:

8 million cubic yards

Answer X:

4 million cubic yards

Answer Y:

20 million cubic yards

Answer Z:

None of the above

Answer: W

Question Type: Bonus

Category: Marine Economics

Question Format: Short Answer

Question:

Name one type of Dredge?

Answer: Clamshell, Hopper, and Pipelines.

Question Type: Toss-up

Category: Physical Oceanography

Question Format: Multiple Choice

Question:

At what depth is 99% of light absorbed?

Answer W:

65 meters

Answer X:

100 meters

Answer Y:

1 meter

Answer Z:

30 meters

Answer: X

Question Type: Toss-up

Category: Physical Oceanography

Question Format: Multiple Choice

Question:

The Shasta Dam is one of the largest dams in the U.S. The 602 foot high dam holds water from which river?

Answer W:

The San Maguire River

Answer X:

The American River

Answer Y:

The Sacramento River

Answer Z:

The Guadalupe River

Answer: Y

Question Type: Toss-up

Category: Physical Oceanography

Question Format: Short Answer

Question:

What coastal areas are often called the “kidneys” of the Bay?

Answer: The wetlands.

Question Type: Toss Up

Category: Physical Oceanography

Question Format: Short Answer

Question:

Estuaries have what kind of water?

Answer: Brackish

Question Type: Toss-up
Category: Physical Oceanography
Question Format: Short answer

Question:
How is sea ice formed?

Answer: Sea ice is formed when ocean water freezes.

Question Type: Toss Up
Category: Physical Oceanography
Question Format: Multiple Choice

Question:
What is the tendency to resist flow?

Answer W:
pressure

Answer X:
resistance

Answer Y:
velocity

Answer Z:
viscosity

Correct Answer: Z

Question Type: Bonus
Category: Physical Oceanography
Question Format: Multiple Choice

Question:
About how much water is evaporated from the Earth each day?

Answer W:
1400 cubic kilometers

Answer X:

160 cubic kilometers

Answer Y:

140 cubic kilometers

Answer Z:

1550 cubic kilometers

Answer: W

Question Type: Toss Up

Category: Physical Oceanography

Question Format: Short Answer

Question:

What percent of California belongs to the San Francisco Watershed?

Answer: 40%

Question Type: Toss-up

Category: Physical Oceanography

Question Format: Multiple Choice

Question:

What percent of the San Francisco Delta's fresh water is diverted from the San Francisco Bay?

Answer W:

20%

Answer X:

40%

Answer Y:

60%

Answer Z:

80%

Answer: Y

Question Type: Bonus
Category: Physical Oceanography
Question Format: Short Answer

Question:
What is the name of the area where two rivers meet?

Answer: A delta

Question Type: Toss-up
Category: Physical Oceanography
Question Format: Multiple Choice

Question:
What is the largest estuary in California?

Answer W:
The Elkhorn Slough

Answer X:
The Puget Sound

Answer Y:
The San Francisco Bay

Answer Z:
Mono Lake

Answer: Y

Question Type: Bonus
Category: Physical Oceanography
Question Format: Multiple Choice

Question:

Sound travels:

Answer W:

14 times faster in water

Answer X:

3 times faster in water

Answer Y:

4 times faster in water

Answer Z:

10 times faster in water

Answer: X

Question Type: Toss-up

Category: Physical Oceanography

Question Format: Multiple Choice

Question:

What are some of the benefits of upwelling?

Answer W:

the surfacing of nutrients

Answer X:

the surfacing of cool water

Answer Y:

high tides

Answer Z:

surfacing of nutrients and cool water

Answer: Z

Question Type: Toss up

Category: Physical Oceanography

Question Format: Short answer

Question:

What are the two main rivers in the central valley of California?

Answer: The San Joaquin and the Sacramento Rivers.

Question Type: Bonus

Category: Physical Oceanography

Question Format: Multiple Choice

Question:

When does the intertropical convergence zone reach its most northerly location?

Answer W:

July

Answer X:

April

Answer Y:

January

Answer Z:

October

Answer: W

Question Type: Toss Up

Category: Physical Oceanography

Question Format: Multiple Choice

Question:

If there is more salt in the seawater then the seawater is what?

Answer W:

warmer

Answer X:

more dense

Answer Y:

less dense

Answer Z:

colder

Correct Answer: X

Question Type: Bonus

Category: Physical Oceanography

Question Format: Multiple Choice

Question:

Where is the deep, dense, oxygen rich seawater formed?

Answer W:

deep reefs

Answer X:

hydrothermal vents

Answer Y:

The poles

Answer Z:

trenches

Answer: Y

Question Type: Bonus

Category: Marine History

Question Format: Short Answer

Question:

What is the name of the nation's first school of engineering opened by the Army Corps of Engineering in 1802?

Answer: The U.S. Military Academy at West Point.

Question Type: Bonus
Category: Marine History
Question Format: Multiple Choice

Question:
What is the name of the African American captain who was a member of the Buffalo Soldiers in the National Parks?

Answer W:
Charles Smith

Answer X:
Charles Young

Answer Y:
James Henry

Answer Z:
Scott Jefferson

Answer: X

Question Type: Toss Up
Category: Marine History
Format: Multiple Choice

Question: What percent of wetlands are left in the San Francisco Bay Area?

Answer W:
15%

Answer X:
25%

Answer Y:
30%

Answer Z:

35%

Answer: W

Question Type: Bonus

Category: Marine History

Question Format: Multiple Choice

Question: Improvements in the San Francisco Bay have been almost continuous since 1809. In what year was the first Hopper Dredge used in the Bay?

Answer W:

1889

Answer X:

1916

Answer Y:

1904

Answer Z:

1817

Answer: X

Question Type: Bonus

Category: Marine History

Question Format: Multiple Choice

Question: When was the U.S. Army Corps of Engineers founded?

Answer W:

1889

Answer X:

1775

Answer Y:

1904

Answer Z:

1817

Answer: X

Question Type: Bonus

Category: Marine History

Question Format: Multiple Choice

Question: What year did John Reber propose a plan that would have radically changed San Francisco Bay?

Answer W:

1930

Answer X:

1935

Answer Y:

1940

Answer Z:

1945

Answer: Y

Question Type: Toss Up

Category: Marine History

Question Format: Multiple Choice

Question: Who discovered the Spreading Sea Floor theory?

Answer W:

Alfred Wegner

Answer X:

Harry Hess

Answer Y:

Charles Darwin

Answer Z:

George W. Bush

Answer: W

Question Type: Bonus

Category: Marine History

Question Format: Short Answer

Question: What was the catastrophe that initiated the Army Corps of Engineers role in the disaster relief in California?

Answer: The San Francisco earthquake of 1906.

Question Type: Bonus

Category: Marine History

Question Format: Multiple Choice

Question: Which engineer filed a report that said, "The San Francisco Bay is in no way fitted for commercial or military purposes?"

Answer W:

John Charles Fremont

Answer X:

William Tecumseh Sherman

Answer Y:

Major Stephen H. Long

Answer Z:

Zebulon Pike

Answer: Y

Question Type: Bonus

Category: Marine Geology

Question Format: Short Answer

Question: What is the subduction zone?

Answer: When two plates collide, the area where a plate is pushed under is known as a subduction zone.

Question Type: Toss Up

Category: Marine Geology

Question Format: Multiple Choice

Question: What is a characteristic of divergent plates?

Answer W:

Creating mountains

Answer X:

Deep sea trenches

Answer Y:

Make big holes

Answer Z:

Seafloor spreading

Answer: Z

Question Type: Toss Up
Category: Marine Geology
Question Format: Multiple Choice

Question: How deep is the Marianas Trench?

Answer W:
143,213 meters

Answer X:
126,832 meters

Answer Y:
10,411 meters

Answer Z:
2,567 meters

Answer: Y

Question Type: Bonus
Category: Marine Geology
Question Format: Multiple Choice

Question: What type of sediment is formed from the breakdown of pre-existing rocks?

Answer W:
Hydrogenous

Answer X:
Lithogenous

Answer Y:
Biogenous

Answer Z:
Metamorphic

Answer: X

Question Type: Toss Up

Category: Marine Geology

Question Format: Multiple Choice

Question: What does bathymetry measure?

Answer W:

Measurements of rip currents

Answer X:

Water depth and shape of the sea floor

Answer Y:

The way the bay is changing shape

Answer Z:

The division of salt and fresh water

Answer: X

Question Type: Bonus

Category: Marine Geology

Question Format: Multiple Choice

Question: Two-thirds of San Francisco Bay is less than:

Answer W:

9 feet deep

Answer X:

18 feet deep

Answer Y:

20 feet deep

Answer Z:

50 feet deep

Answer: X

Question Type: Toss Up

Category: Marine Technology

Question Format: Multiple Choice

Question: What is the most significant difference between a ROV and an AUV?

Answer W:

ROV's can go deeper

Answer X:

AUV's can contain compressed air

Answer Y:

ROV's are not tethered to a ship

Answer Z:

AUV's are not tethered to a ship

Answer: Z

Question Type: Toss Up

Category: Marine Technology

Question Format: Multiple Choice

Question: What does AUV stand for?

Answer W:

Automatic Underwater Vehicle

Answer X:

Apparatus Underwater Vehicle

Answer Y:

Autonomous Underwater Vehicle

Answer Z:

Aquageffa Underwater Vehicle

Answer: Y

Question Type: Toss Up

Category: Marine Technology

Question Format: Multiple Choice

Question: What is the average level of levees in the San Francisco Delta system?

Answer W:

10%

Answer X:

30%

Answer Y:

50%

Answer Z:

70%

Answer: X

Question Type: Toss Up

Category: Marine Technology

Question Format: Multiple Choice

Question: Which instrument showed that the sea floor is not at all flat, but has varying depths and features?

Answer W:

ROV

Answer X:

SONAR

Answer Y:

AUV

Answer Z:

LORAN

Answer: X

Question Type: Toss Up

Category: Marine Technology

Question Format: Short Answer

Question: What does ROV stand for?

Answer: Remotely Operated Vehicle

Question Type: Toss Up

Category: Marine Technology

Question Format: Multiple Choice

Question: Who invented the Nansen Bottle?

Answer W:

Jacques Cousteau

Answer X:

Fritjof Nansen

Answer Y:

Jim Jarrat

Answer Z:

Alvin

Answer: X

Question Type: Bonus
Category: Marine Technology
Question Format: Short Answer

Question: How many trial runs are required for a tanker to become a complete tanker?

Answer: Two

Question Type: Bonus
Category: Marine Technology
Question Format: Short Answer

Question: Name two of the eight marine tankers assembled near Tokyo Bay near the end of World War II.

Answer: USS Escamba, USS Kennebago, USS mascoma, USS Pamanset, USS Sebec, USS Tomahawk, USS Caney, USS Tamalpias

Question Type: Bonus
Category: Marine Technology
Question Format: Short Answer

Question: What are ships built on?

Answer: Wooden platforms called shipways or ways.

Question Type: Bonus
Category: Marine Technology
Question Format: Short Answer

Question: What are the functions of levees and dams?

Answer: To protect cities and farms from disastrous floods, while storing water to irrigate crops and provide water for residents.

Question Type: Toss Up

Category: Physical Oceanography

Question Format: Multiple Choice

Question: What is the approximate maximum sea surface temperature ever recorded in the ocean?

Answer W:

28° C

Answer X:

32° C

Answer Y:

36° C

Answer Z:

40° C

Answer: Z

Question Type: Bonus

Category: Biology

Question Format: Short Answer

Question: What is the general name for the type of eyes found in crustaceans and insects?

Answer: Compound eye

Question Type: Toss Up
Category: Physical Oceanography
Question Format: Multiple Choice

Question: Hydrostatic pressure is a function of all but which of the following?

Answer W:
Temperature

Answer X:
Salinity

Answer Y:
Depth

Answer Z:
Current Speed

Answer: Z

Question Type: Toss Up
Category: Marine Biology
Question Format: Multiple Choice

Question: Which of the following is not a typical vector for the introduction of aquatic invasive species?

Answer W:
Ballast water exchange

Answer X:
The home aquarium industry

Answer Y:
Aquaculture

Answer Z:
Drinking water treatment systems

Answer: Z

Question Type: Toss Up

Category: Physical Oceanography

Question Format: Multiple Choice

Question: Tide cycles with two equal high and two equal low tides in a day are:

Answer W:

Diurnal tides

Answer X:

Semidiurnal tides

Answer Y:

Mixed tides

Answer Z:

Neap tides

Answer: X

Question Type: Bonus

Category: Biology

Question Format: Multiple Choice

Question: Which of the following sharks has a tail that can be as long as its body?

Answer W:

Tiger shark

Answer X:

Great white shark

Answer Y:

Thresher shark

Answer Z:

Weasel Shark

Answer: Y

Question Type: Toss Up

Category: Marine Technology

Question Format: Multiple Choice

Question: What are the two components in the Integrated Ocean Observing System (IOOS) that use both remote sensing and in situ sensing to detect, assess, and predict the effects of global climate change, weather, and human activities on oceans and coasts?

Answer W:

Satellite component and research component

Answer X:

Coastal component and global ocean component

Answer Y:

Academic component and environmental component

Answer Z:

Linkage component and data component

Answer: X

Question Type: Bonus

Category: Biology

Question Format: Short Answer

Question: What is the name given to microbes that grow best in high saline conditions?

Answer: Halophiles

Question Type: Toss Up

Category: Physical Oceanography

Question Format: Multiple Choice

Question: Over a period of thousands of years, which of the following is true for the Carbon Cycle?

Answer W:

The oceans determine atmospheric CO₂ concentrations

Answer X:

The atmosphere determines the oceanic CO₂ concentrations

Answer Y:

The oceans have only a minor affect on atmospheric CO₂ concentrations

Answer Z:

The terrestrial CO₂ reservoir directly determines the oceanic CO₂ concentration

Answer: W