CHAPTER 1 – OCE 1001 (Introduction to Oceanography, Professor Chiappone)  
INTRODUCTION TO PLANET “EARTH” (Trujillo and Thurman, 11th edition)  

SAMPLE QUESTIONS

Matching Questions

Match the term or person with the appropriate phrase. You may use each answer once, more than once or not at all.

A) first determination of Earth's circumference
B) mapped world with Roman knowledge showing latitude and longitude
C) made important observations about drift of sea ice
D) first European explorer to see the Pacific Ocean
E) led voyage that first used the marine chronometer
F) mapped the Mediterranean Sea for the Greeks
G) led voyage that first circumnavigated the globe
H) incorrectly concluded that no life exists in deep ocean
I) used ecological approach to solve fisheries problem
J) established impermanent settlement in North America and the first Europeans to explore Iceland and Greenland

1) Balboa
2) Eratosthenes
3) Magellan
4) Ptolemy
5) Vikings

Match the term with the appropriate phrase. You may use each answer once, more than once or not at all.

A) gaseous and dusty space cloud (pre-cursor to a solar system)
B) contains minerals rich in iron and magnesium, between the crust and the core, and has the second largest volume according to the chemical classification
C) composed mostly of iron and nickel with a liquefied metallic outer layer
D) the Sun and the eight major planets revolving around it
E) outermost portion of the Earth composed largely of the igneous rocks basalt and granite
F) Milky Way galaxy
G) solar winds

6) core
7) crust
8) mantle
9) nebula
10) solar system

Match the term with the appropriate phrase. You may use each answer once, more than once or not at all.

A) innermost layer of the Earth, a solid
B) oceanic crust
C) plastic (capable of flow) portion of the upper mantle beneath the lithosphere
D) continental crust
E) lower portion of the mantle that is rigid
F) composed of iron, nickel, and sulfur
G) crust and the uppermost mantle consisting of a solid rock layer

11) asthenosphere

12) basalt

13) granite

14) lithosphere

15) mesosphere

**True/False Questions**

16) Early Polynesians only traveled within sight of land.

17) In Europe, significant oceanographic knowledge was acquired during the Middle Ages.

18) The Earth's crust solidified around 4.5 billion years ago.

19) Oceanic crust is less dense than continental crust because it is made of silica and manganese.

20) In general, the salinity content of ocean water has remained constant throughout the majority of Earth's history.

21) Free oxygen was present in the Earth's primordial atmosphere.

22) Anaerobic organisms require oxygen to survive.

23) Radiometric dating is used to determine the ages of rocks.

**Multiple Choice Questions**

24) The largest of the ocean basins, which currently covers more than half of the ocean surface, is the:
   A) Arctic Ocean.
   B) Atlantic Ocean.
   C) Indian Ocean.
   D) Pacific Ocean.
   E) Southern Ocean.
25) The average depth of the world's oceans is approximately:
A) 11,022 meters (36,161 feet).
B) 840 meters (2,756 feet).
C) 3,682 meters (12,080 feet).
D) 2,172 meters (7,126 feet).
E) none of the above.

26) The first humans from Western Hemisphere known to have developed the art of navigation were the:
A) Polynesians.
B) Greeks.
C) Vikings.
D) Phoenicians.
E) New Zealanders.

27) Most of the explorations by northern and western Europeans during the Middle (Dark) Ages were undertaken by:
A) Italy.
B) Portugal.
C) Vikings of Scandinavia.
D) France.
E) Spain.

28) The European "Age of Discovery" ended with:
A) Christopher Columbus' discovery of the "New World."
B) Ferdinand Magellan's circumnavigation of the globe.
C) Phoenician exploration of the Mediterranean.
D) Polynesian colonization of Pacific Islands.
E) Viking voyages to North America.

29) The scientific method includes all of the following **except**:
A) data collection.
B) evaluation of data.
C) hypothesis formation.
D) hypothesis testing.
E) validation of a theory.

30) Plate tectonics and evolution, which are held with a high degree of confidence because of rigorous testing and verification, are examples of:
A) guesses.
B) laws.
C) observations.
D) hypotheses.
E) theories.

31) The **nebular hypothesis** suggests that:
A) all bodies in the solar system formed from an enormous gas cloud.
B) Earth's moon is an asteroid captured by the Earth's gravity.
C) galaxies such as the Milky Way form independent of one another.
D) the Earth was formed by a cosmic explosion, a "big bang".
E) the moon is derived from a protoplanet.
32) Oceanic crust is primarily:
   A) basalt.
   B) carbonate sedimentary rocks.
   C) clay minerals.
   D) granite.
   E) siltstone.

33) Earth's primordial atmosphere most likely included:
   A) ammonia, oxygen, carbon dioxide, and water vapor.
   B) carbon dioxide, water vapor, sulfur dioxide, and methane.
   C) hydrogen, helium, and oxygen.
   D) nitrogen, ozone, and sulfur dioxide.
   E) all of the above.

34) The mechanism by which populations evolve and new species develop is called:
   A) adaptation.
   B) evolution.
   C) descent with modification.
   D) intelligent design.
   E) natural selection.

35) Radioactive materials can sometimes be used to determine the:
   A) origin of rocks.
   B) chemical composition of rocks.
   C) formation method.
   D) metamorphism.
   E) ages of rocks.

**Word Relationships**

Examine the five words and/or phrases and determine the relationship among the majority of words/phrases. Choose the one option that does not fit the pattern.

36) A. Mediterranean  
    B. Arctic  
    C. Atlantic  
    D. Indian  
    E. Pacific

37) A. Eratosthenes  
    B. Herodotus  
    C. Ptolemy  
    D. Pytheas  
    E. Magellan
38)  
A. observation  
B. hypothesis  
C. belief  
D. theory  
E. testing  

39)  
A. granite  
B. asthenosphere  
C. continental crust  
D. basalt  
E. oceanic crust  

40)  
A. autotrophs  
B. chemosynthesis  
C. photosynthesis  
D. heterotrophs  
E. plants