# Oceanography 15

## 15A

3. What were the three main reasons for the early voyages of discovery? What did these explorers discover about the oceans?

4. Why was the HMS Challenger expedition different from every other voyage of exploration up to that time?

5. What kinds of new equipment and methods did the Challenger expedition bring to ocean exploration that had never been tried before?

## 15B

2. List five things oceanographers may measure at a sample point.

3. What method have oceanographers used in the past to obtain a sounding? What method is used today?

6. What is the most important advantage of sonar bottom profiling over the older method?

## 15C

1. Describe the different ways people tried to get air to underwater workers before the invention of scuba gear.
2. What was the major advantage of scuba diving over hard-hat diving? What was its biggest disadvantage?

6. What was the major improvement of DSVs like the Alvin over the Trieste?

What are the differences between an ROV, AUV, DSV, and UUV? For what kinds of underwater work is each most suited?

* ROV- tethered robotic submersible controlled by operators above; good for complicated repairs or survey work over a small area
* AUV-
* DSV- an manned explorer vehicle which can carry a large crew, move fast, take sonar/photos of large areas
* UUV-