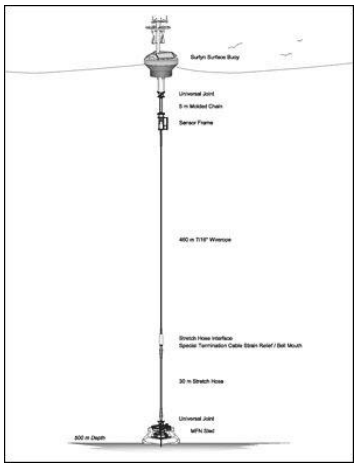
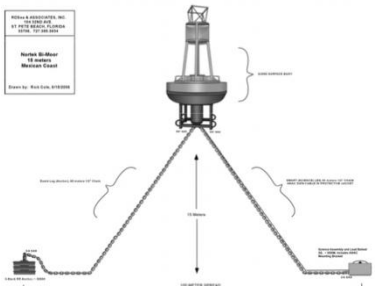
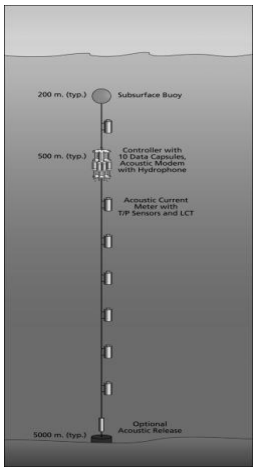
ANSWER **ANSWER** **ANSWER**

Round: 4B

1. Match the drawing of the mooring or drifter on the following page with the best description from the list below (*6 pts*).



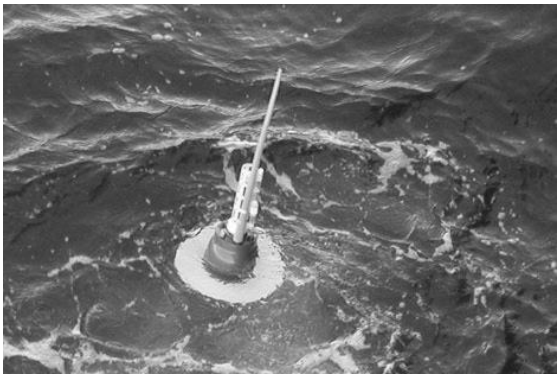




A. Single-mooring surface buoy (1pt)

B. Bi-mooring surface buoy (1pt)

C. *Subsurface buoy (1pt)*



D. *Surface*

E. *Argo Drifter (1pt)*

F. *Holey-sock*

2. Match the letter of the photo (from Part 1) of the best buoy or drifter for each of the applications below. Each letter will be used only once. (*2 pts each, 12 pts total*).

E a. Follow the movement of water with a particular density.

C b. Measure oceanographic parameters over a vertical range in areas with heavy boat traffic or ice coverage.

D c. Measure the surface currents

A d. Monitor wind speed and surface water temperatures in one location

F e. Track the movement of a water parcel about 10 m below the surface.

B f. Keep a buoy in one location with minimal rotation so equipment does not tangle around anchor lines.

3. Which measurement coordinate system does each of the following technologies use?

a. Anchored buoy
Lagrangian measurement (1 pt)

b. Drifting buoy
Eulerian measurement (1 pt)