

題號： 99

國立臺灣大學105學年度碩士班招生考試試題

科目：海洋化學

題號：99

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A. 選擇題(30%, 每題 3%, 可能複選):

1. What is the most common method in measuring sea water salinity and temperature profile: a) ABS, b) NBC, c) STD, d) CTD, e) PBS.
2. What is the name for chlorinity determination: a) Knudsen titration, b) Redfield method, c) Bunsen method, d) Coriolis method, e) Gibbs titration.
3. Molality is: a) mole/Kg, b) mole/L, c) Kg/Kg, d) Kg/L, e) L/L.
4. O_2 in surface seawater at a salinity of ~ 35 is (or are) most likely a) 180 mmole/m^3 , b) 6 mL/L , c) 6 mmole/m^3 , d) 180 mL/L , e) 90 mL/L .
5. Dissolve iron (Fe) concentration of deep seawater is about a) 0.1 mM , b) $0.1 \mu\text{M}$, c) 0.1 nM , d) 1 mM , e) 1 mL/Kg .
6. Salinity of Kuroshio current is most likely at a) 36, b) 18, c) 45, d) 0.36, e) 370.
7. 10^3 equal to: a) 1000, b) ten to the third power, c) one thousand, d) k, e) one over a thousand.
8. What is CCD in ocean: a) cation catch depth, b) carbonate compensation depth, c) carbon capture determination, d) cathode compensation depth, e) chlorinity concentration determination.
9. Manganese nodule most likely could be found at a) in the middle of ocean, b) coastal area, c) upwelling d) South pole, e) Mediterranean Sea.
10. Where is Bering Sea: a) north of Ice land, b) south of Long Island Sound, c) North of the Alaska Peninsula, d) South of Cape Good Hope, e) North of Cape Cod.

B. 解釋名詞(30%, 每題 3%):

1. salinity,
2. thermocline,
3. conservative mixing,
4. NAEC,
5. chemolithoautotroph,
6. Redfield-Richard ratio,
7. DOM,
8. AOU,
9. lysocline,
10. salting out.

C. 申論題 (40%, 每題 20%)

1. What is iron hypothesis?
2. What are the types and sequence of organic carbon oxidation reactions normally found in the oceanic environment?

試題隨卷繳回