

Bando 47/2024 - Selezione pubblica per titoli e colloquio per il conferimento di 1 (uno) assegno di ricerca professionalizzante sul tema "Oceanografia delle regioni Polari" per la Sezione di Oceanografia dell'Istituto Nazionale di Oceanografia e di Geofisica Sperimentale – OGS

Quesiti preparati per i candidati:

DOMANDE oceanografia GENERICA

1. Explain the role of global thermohaline circulation and the main factors that drive it.
2. How do you define a water Mass in the Ocean?
3. What is a CTD-ROSETTE system and how does it work?
4. Explain what the ARGO programme is, what purpose it serves and which instruments are used.
5. Explain how an autonomous platform works (e.g., mooring, float, glider, drifter)
6. What is the difference among Eulerian and Lagrangian instruments?
7. What is an oceanographic mooring? How does it work and what instruments is it normally equipped with?
8. What is an oceanographic mooring and how is it deployed in the ocean?
9. What does quality control mean for oceanographic data? Give me an example.
10. How do you analyse a climate process in the ocean? What tools can you use and what data can you look for?
11. Describe the most important oceanographic instruments used on board a research vessels.
12. What is a time series and how is it analysed? Which tools can you use?
13. Which tools are effective in analysing a time series?
14. When can you say that a time series has a trend?
15. Describe an oceanographic instrument you are familiar with.
16. Describe useful tools for data analysis.
17. What is Ocean Data View? What do you use it for?
18. Describe the main diagrams used to visualize oceanographic parameters.
19. What is the difference between the Climate model and regional model.
20. Where can you find Oceanographic data?
21. How do you organize and work with a large oceanographic dataset?
22. What is a vertical profile in the ocean and what do you do to understand if the measurements are reliable?
23. You have oceanographic data in a specific region, but you want to verify if data are reliable, what do you do as a first approach?

DOMANDE OCEANOGRAFIA POLARE (più specifiche)

1. How sea ice is formed and what role it plays in thermohaline circulation.
2. What is the Atlantification process and how it is impacting the Arctic environment?
3. Do you know some differences between the Arctic and Antarctic in terms of climate change?
4. What are the main physical and biogeochemical impacts of the increased inflow of Atlantic water into the Arctic Ocean?
5. What is the Atlantification process?
6. Explain the difference between Sea Ice changes in the Arctic and Antarctic in the last decades.
7. How does sea ice impact ocean circulation?

8. Explain the Dense water formation process.
9. What is a Polynya?
10. What is the impact of sea ice melting? and what about glacier melting?
11. Why are Polar areas important for Climate change studies?

Sgonico, 14 febbraio 2025

Il segretario della Commissione

A handwritten signature in black ink, appearing to read "Antonio Gallo". The signature is written in a cursive, flowing style.