



ملفوظ

 <p>جامعة دمياط Damietta University</p>	<p>May 2023/2024 Date: 8/6/2024 Time: 2 hours Environmental Sciences Department</p>	 <p>كلية العلوم جامعة دمياط</p>
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Final Exam in Water Quality (بـ 413) " for 4th year Environmental Sciences program students.

Examiner: Dr/ Mervat El-Sonbati

Answer all the following questions: Total Mark: 90

Question [1]: [30 marks]

- Mention the importance of water. [9 marks]
- Write on surface waters, refer to the advantages and disadvantages. [11 Marks]
- Define the urban water cycle, and explain how does clean water reach our homes when we open the tap? [10 Marks]

Question [2]: [30 marks]

- What are the Objectives of water quality monitoring? [7 marks]
- Comment on indicator organisms. [7 marks]
- Explain the steps of drinking water treatment. [8 marks]
- Illustrate the differences between BOD, COD or TOC? [8 marks]

Question [3]: Complete the following sentences [30 marks]

-and can cause undesirable tastes in drinking water and have a teeter-totter relationship in your body.
- The maximum allowable levels of in public water supplies depend on local climate and the excessive amounts cause discolored teeth.
- There are four forms of nitrogen in water and wastewater;,.....,..... and
- If high concentrations of are consumed in drinking water, there may be objectionable tastes or unwanted laxative effects.

5. can react with organics in water forming toxic compounds called trihalomethanes.
6. Small amounts of are essential for ordinary cell functions in animal and plant life.
7. The and in natural waters provide a buffering action that protects fish and other aquatic organisms from sudden changes in pH.
8. Amphibians are extremely endangered by because their skin is very sensitive to contaminants.
9. is one of the main parameters used to determine the suitability of water for irrigation and firefighting.
10. The are retained on the top of the filter and the pass through the filter with the water.
11. Some lakes can have high salinity due to a combination of dissolved ions such as,, and
12. and in water can be caused by foreign matter such as organic materials, inorganic compounds, or dissolved gasses.
13. The color of a water sample can be reported as and
14. Palatability, viscosity, solubility, odors, and chemical reactions are influenced by
15. Groundwater normally has very low because of the natural filtration that occurs as the water penetrates through the soil.
16. Water quality can be classified into four types;,, and

Best wishes

Dr/ Mervat El-Sonbati