Damietta University
Faculty of Science
Environmental Science Dept.
3rd year Env. Students.

Damietta University
1st Semester (2023)

Environmental monitoring and health.
Code: (306E)
Date: 10/ 1/ 2023
Time: 2 Hours
Full Mark: 90 Marks

Answer All the Following Questions

Question 1:
[30 Marks]

a) Mention to water quality sampling duration [5 Marks]

b) Compare between physical adsorption and Chemical Adsorption [6Marks]

c) Classify the water monitoring network types [9 Marks]

d) **Tell if each of the following statements is __true__ or __false__. If false, rewrite it to make it a correct statement.** [10 Marks]

i. Water quality sampling frequency depends upon the objectives of the sampling program and the water body of interest

ii. The long-term baseline network should be maintained with minimal change or disruption in order to provide a long-term record of hydro-meteorological conditions

iii. Water quality is influenced by both natural factors and anthropogenic influences

iv. An NDIR analyser is basically an instrument that does not disperse the light emitted from an infra-red source

v. Chemiluminescence is the emission of light energy that results from some chemical reactions.

Question 2:
[30 Marks]

a) What is meant by occupational hazards? Give examples [4 Marks]

b) Develop a Surface Water Monitoring Network [8 Marks]

c) Illustrate with drawing the Flame Photometric Analysers [7 Marks]

d) **Complete the following sentences:** [11 Marks]

i. Instrumental methods of Air pollution monitoring include -----, ---- and --------.

ii. ------------ monitoring method is the preferred technique for CO gas monitoring while ------------ is specific for SO_2 in air

iii. The methods used for the measurement of PM_{10} are -----, ---- and --------.

iv. Three ecological factors are responsible for a disease: -----, ---- and --------.

Question 3:
[30 Marks]

a) Classify the types of pollutant sources by their spatial distribution [12 Marks]

b) Define absorption referring to its principle [8 Marks]

c) Mention to the High-Volume Air Sampler [10 Marks]

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Examiner: Prof. Omnya ElBatrawy