



FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY
Bachelor of Science Honors in Fisheries and Marine Sciences Degree/
Bachelor of Science Honors in Marine and Freshwater Sciences Degree
 2022/2023, Level III, Semester-I Examination

LIM 3132 – Aquatic Pollution

Time: 01 ½ hours

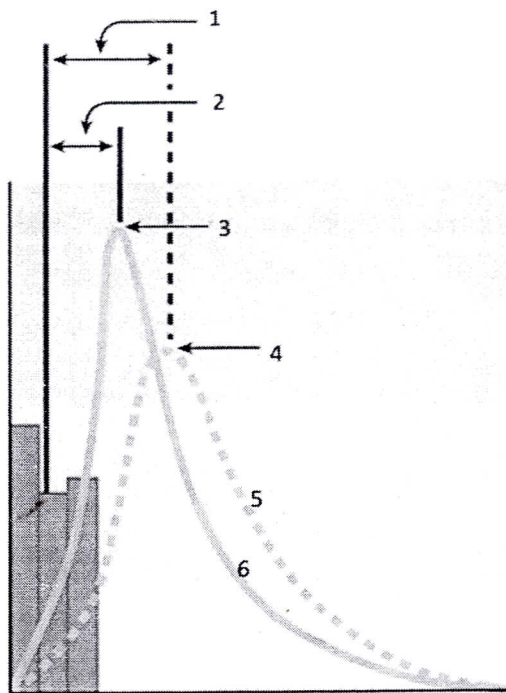
Part B

Answer all questions within the given space.

1. Figure below shows a hydrograph of a river segment before and after urbanization of the surrounding catchment.

a. Label from 1 to 6 on the figure.

(12 marks)



b. What are the X axis and two Y axes of the graph?

(06 marks)

2. State three hydrological modifications in a stream resulted by excess surface runoff due to urbanization.

(06 marks)

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3. State four types of contaminants added into a stream by excess surface runoff due to urbanization. (04 marks)

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4. What are the three factors deciding the velocity and direction of an oil slick drifting in a water body? (06 marks)

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5. When a drifting oil slick reaches a shoreline, it will deposit depending on the maximum oil-holding capacity 'V_{max}' of the shoreline. It can be calculated using the following equation.

$$V_{\max} = L_S W_S D_S \eta_{\text{eff}} \text{ (m}^3\text{)}$$

Define each term of the equation. (08 marks)

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6. Pathogenic microorganisms are considered as one of conventional water pollutants. Once entered water bodies they can be embedded into biofilms. What are the four phases of this embedding process? (08 marks)

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Part C

Answer only **one (01)** question.

1. Write an essay on "Salinity as a groundwater pollutant." (50 marks)
2. Define "Conventional water pollutants" and explain "Biochemical oxygen demand" as a conventional water pollutant. (50 marks)

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(04 marks)

drifting in a water
(06 marks)

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