

UNIVERSITY OF RUHUNA
BACHELOR OF SCIENCE GENERAL DEGREE LEVEL III (SEMESTER II)
EXAMINATION - JANUARY/FEBRUARY 2018

SUBJECT : Zoology

Time: 01 hour

COURSE UNIT: ZOO 3272 - Environmental Pollution and Toxicology

Answer **any two (02)** questions only.

Illegible handwriting would be penalized.

1. Write an account on factors that modify the activity of toxicants.

2. Briefly describe the (biological) aerobic processes that can be used in waste water treatment.

3. A chemical plant situated near Nilwala River releases a large amount of different toxicants. Initial exposure assessment has been conducted and Predicted Environmental Concentrations (PEC) and Predicted No Effect Concentration (PNEC) are given in Table 1.

Table 1: Predicted Environmental Concentrations (PEC) and Predicted No Effect Concentration (PNEC) for the compounds.

Compound	PEC ($\mu\text{g/l}$)	PNEC ($\mu\text{g/l}$)
A	0.08	0.009
B	2.12	1.57
C	2.32	0.001
D	5.64	25.32
E	30.8	22.54

Perform a preliminary risk assessment for the compounds using the data given in Table 1 and comment on your results with suitable recommendations.

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