SECOND SEMESTER M.Sc. DEGREE EXAMINATION, MAY 2019
(Regular/Supplementary/Improvement)
(CUCSS - PG)
CC15P ES2 C10 - **ENVIRONMENTAL TOXICOLOGY AND BIOCHEMISTRY**
(Environmental Science)
(2015 Admission onwards)

Time: Three Hours　　　　　　　　　　　　　　　　　Maximum: 36 Weightage

I. Answer *all* questions. Each question carries 1 weightage.

　　1.　Natural sources of air pollution.

　　2.　Differentiate carcinogens and teratogens.

　　3.　PAHs

　　4.　Toxicity testing.

　　5.　Biomarkers.

　　6.　Endocrine disruptors.

　　7.　Organochlorine pesticides.

　　8.　DNA intercalation.

　　9.　Acute and chronic toxicity.

　　10. Transboundary pollutants.

　　11. Biomagnification.

　　12. Biomedical waste management.

　　13. *E. coli*

　　14. Dosimetry.

(14 x 1 = 14 Weightage)

II. Answer any *seven* questions. Each question carries 2 weightage.

　　15. Analyse how 'eco-toxicology' is an important science in the present world scenario.

　　16. Write about environmental mutagens.

　　17. Briefly explain about the role of metallothioneins.

　　18. Explain food adulterants and its effects.

　　19. Write a note on hormone mimics and its consequences.

　　20. Briefly explain about vector borne diseases and the role of climate change on vector borne diseases.

21. Explain causes and consequences of heavy metal pollution.

22. Explain the role of bio-indicators in ecosystem health assessment.

23. Explain about the dose response curve analysis in toxicological studies.

24. What are the effects of toxic chemicals on biological molecules?

(7 x 2 = 14 Weightage)

III. Answer any *two* questions. Each question carries 4 weightage.

25. Write an essay on fate of contaminants in ecosystems with suitable illustrations.

26. Critically analyse the air pollution diseases in relation to environmental changes and pollution with special reference to India.

27. Explain about the various health effects of background radiation and its possible management options.

28. Write briefly about:

a) Epidemiological techniques to assess health impacts.

b) Emerging contaminants and its consequences.

(2 x 4 = 8 Weightage)

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