

Five Year Integrated M.Sc. Examinations 2023
Semester - VII
Course: EES-4-7-2
(Environmental Toxicology)

Time: 4 Hours

Full Marks: 80

Questions are of value as indicated in the margin.

Answer **Question No.1** and **any four** from the rest

1. Write short notes on **any four** of the following.
 - (a) Preservative (Methylparaben)
 - (b) Plasticizer (Bisphenol A)
 - (c) Metal fume fever
 - (d) Itai-Itai
 - (e) Toxicity of CO
 - (f) Mesothelioma

4 x 4 = 16
2.
 - (a) Describe the role of biotransformation in the detoxification process.
 - (b) Explain at least two different types of detoxification processes via biotransformation.

8+8=16
3. Provide a schematic presentation of the classifications of xenobiotics and also provide a tabular form showing the characteristic, classification, source and example of each xenobiotic.

4+4+4+4= 16
4. Draw a schematic diagram stating the fate of xenobiotics under the subheadings abiotic conversion, biotic conversion and no conversion at all. Explain each component in detail as a schematic diagram.

12+4=16
5. Explain the effects of lead on haemoglobin formation. Give a note on the toxicity of lead.

10+6=16
6. What are waterborne diseases? Discuss the life cycle of any waterborne disease you have studied. What is the effect of climate on such diseases?

2+10+4=16
7. Differentiate PM_{2.5} and PM₁₀. Give a note on the particle deposition in the lung and its clearance mechanism.

6+(6+4)=16