

M.Sc. Examination 2018
Semester-IV
Environmental Science
Course : MEO-444
(Soil Pollution)

Time : 3 Hours

Full Marks : 40

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 : 2×4=8
 - (a) Endocrine disrupting chemicals
 - (b) K_{OC} and K_{OA} – its role in behaviour of POPs
 - (c) Sequential extraction
 - (d) Phytoextraction
 - (e) Bio-methylation
 - (f) Cadmium toxicity

 2. Explain the fate of nutrient trace elements in agro-ecosystem with a suitable illustration. 8

 3. Explain the role of soil amendments in the immobilization and bioavailability of metals. Explain any two in details. 3+5=8

 4. Give a note on the biological method or biological tool to assess the contaminant bioavailability. Explain at least two tools. 3+5=8

 5. Explain the process which influence the organic compound's bioavailability. 8

 6. Discuss the disruptive and non-disruptive method for determination of heavy metal speciation in soil. 8

 7. Discuss the sample preparation and separation techniques for POPs in soil. 8
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