

Total No. of Questions :8]

SEAT No. :

**P1743**

[Total No. of Pages : 2

[5230] - 102

M.Sc.

**ENVIRONMENTAL SCIENCE**

**EVSC-102: Environmental Chemistry**

**(2013 Pattern) (Semester - I)**

*Time : 3 Hours]*

*[Max. Marks :50*

*Instructions to the candidates:*

- 1) *Solve any five questions from the following.*
- 2) *Neat and labeled diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*

**Q1)** Answer the following: **[10]**

- a) What are the carcinogenic effects of aflatoxins.
- b) Write a brief note on DNA structure.

**Q2)** Write a short note on: **[10]**

- a) Detector in NAA.
- b) Applications of isotope dilution method.

**Q3)** Explain in brief: **[10]**

- a) Process of destruction of alkali metals.
- b) Merits and demerits of XRF.

**Q4)** Answer the following: **[10]**

- a) What is embryogenesis? Explain mutation and gene control during embryogenesis.
- b) Explain the hydrogen bonding in biological system.

**P.T.O.**

**Q5)** Explain the principle and application of **[10]**

- a) Polarography.
- b) Gas chromatography.

**Q6)** Answer the following: **[10]**

- a) Explain the various components and its role in HPLC.
- b) Explain the physical and chemical properties of head.

**Q7)** Draw a neat labelled diagram of- **[10]**

- a) Atomic absorption spectroscopy.
- b) Flame photometry.

**Q8)** Write short notes on: **[10]**

- a) Modified detergents.
- b) Micro and macro plant micronutrients.

*EEE*