

T.Y.B.SC. SEM – V (2014 COURSE) : WINTER - 2017
SUBJECT : OPTIONAL – (A) ENVIRONMENTAL CHEMISTRY-V

Day : **Friday**
Date : **03/11/2017**

W-2017-0668

Time : **3.00 P.M. To 5.00 P.M.**
Max. Marks : 40.

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate full marks.
 - 3) Draw neat labeled diagrams **WHEREVER** necessary.
 - 4) Bothe the sections should be written in **SEPARATE** answer books.
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SECTION-I

Q.1 Answer any **TWO** of the following: **(10)**

- a) Which are the major developments in evolution of the atmosphere of our earth? Describe these developments.
- b) "El Nino is one of the major events occurring on the Earth which affects the world economy." Explain.
- c) What do you understand by Ozone depletion? Explain the impacts of ozone holes on the human health.

Q.2 Answer any **TWO** of the following: **(10)**

- a) "Particulates cause serious hazards to the plant as well as animal world." Explain.
- b) Discuss various aspects of air pollution caused by carbon monoxide.
- c) What do you mean by a term called "Smog"? How does photochemistry play a role in formation of photochemical smog?

SECTION-II

Q.3 Answer any **TWO** of the following: **(10)**

- a) What do you understand by "chemical speciation"? Explain with suitable example.
- b) Draw a cycle showing nitrogen transformation by the bacteria. Describe the pathways shown in this cycle.
- c) How do you carryout sampling process for polluted water required for its analysis?

Q.4 Answer any **TWO** of the following: **(10)**

- a) What is the environmental impact of water pollution caused by pesticides and detergents?
- b) Draw a neat diagram of Urey and Millar experiment. Describe the experiment in detail with respect to primitive earth atmosphere.
- c) Describe the variation of amount of oxygen in our atmosphere since the origin of the Earth.

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