**AKGEC/IAP/FM/02**

**Ajay Kumar Garg Engineering College, Ghaziabad**

**Department of Applied Science and Humanities**

**Sessional Test-II**

**Course: B.Tech Semester: III**

**Session: 2017-18 Section: CS-1,2,3, EN-1,2, IT-I, J,EI**

**Subject: ENV. & ECOLOGY Sub. Code: RAS 302**

**Max Marks: 50 Time: 2 hours**

**INSTRUCTIONS: Answer all the questions.**

**SECTION-A**

**A. Attempt all the parts (5\*2=10)**

1. What are the biogeochemical cycles?
2. Write a note on rill, sheet and gully erosion?
3. Name the causative agents of water borne disease.
4. Write down the composition of biogas.
5. Mention the permissible limit of fluoride in potable water.

**SECTION-B**

**B.** **Attempt all the parts (5\*5=25)**

1. What is deforestation? Discuss its causes, effects and control measures.
2. Discuss preventive measures of soil erosion.
3. Discuss the various problems associated with high fluoride content.
4. Discuss mechanism, reactions and advantages of fuel cell.
5. Differentiate between nuclear fission and fusion. Write a detail note on nuclear energy with advantage and disadvantage.

**SECTION-C**

**C. Attempt all the parts (2\*7.5=15)**

1. Draw a neat sketch of Nitrogen cycle. Discuss various steps and reactions involved in it. Name the microorganisms participate in Nitrogen cycle.
2. How solar energy is converted in to electricity. Discuss the mechanism with suitable diagram. What are major advantage and disadvantage involved in this process?