

**B.Sc. 6<sup>th</sup> Semester (Honours) Examination, 2021-22**

**ENVIRONMENTAL SCIENCE**

**Course ID: 61811**

**Course Code: SH/ENV/601/C-13**

**Course Title: Environmental Pollution and Human Health**

**Time: 1 hr 15 min.**

**Full Marks: 25**

*The figures in the right hand side margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

**1. Answer any five questions from the followings: 1 x 5=5**

- a) Mention the 24 h average value of PM<sub>2.5</sub> as prescribed by WHO.
- b) What are the significant health effects of TVOC?
- c) What is Itai-itai disease?
- d) What is meant by half life of radioactive elements?
- e) Mention two important components of soil pollution.
- f) Define 'eutrophication'.
- g) Write the full form of LPG and PNG?
- h) Define 'oxidation pond'?

**1. Answer any two questions from the followings: 5 x 2=10**

- a) Explain the causes of indoor air pollution and its potential health effects.
- b) What is ambient air quality? Briefly mention the permissible limits of NO<sub>x</sub>, SO<sub>x</sub>, CO, CO<sub>2</sub> set by National Ambient Air Quality Standards of India.
- c) Explain in brief the various health effects of fluoride and arsenic contamination in drinking water.
- d) Briefly explain the role of Effluent Treatment Plants (ETPs) in controlling water pollution in Indian megacities.

**2. Answer any one question from the followings: 10x1=10**

- a) Explain with suitable diagram of Membrane Bioreactor (MBR) in treating municipal wastes.
- b) Explain with examples of different long term measures for reduction of environmental pollution in India.