

**Instructions to candidates**

**Duration:** 01 hour

**Number of questions:** 4 Essay

**Mark allocation:** 100 mark

Answer all questions

1. Discuss the role of viruse's as a waterborne pathogen. (20 mark)
2. Discuss the importance of various faecal indicator organisms with relevant examples. (20 mark)
3. Briefly describe the activated sludge process. (20 mark)
4. Write short notes on following topics.
  - a. Algal blooms. (20 mark)
  - b. Chlorine as a disinfectant in water treatment process. (20 mark)

