COURSE CODE (CREDITS): 18B11CE512 (3) MAX. MARKS: 15

COURSE NAME: SEWAGE TREATMENT AND DISPOSAL

COURSE INSTRUCTOR: NIRAJ SINGH PARIHAR MAX. TIME: 1 Hour

Note: All questions are compulsory. Marks are indicated against each question in square brackets. Assume suitable data if required.

1. Distinguish between conventional and water conveyance systems of sewage collection stating their relative advantage and disadvantages. **[4 Marks][CO1]**

2. Explain at least 3 patterns of sewage collection and their topographical suitability with the help of schematic diagram. **[4 Marks][CO1]**

3. A circular sewer is to be designed to carry maximum flow of sewage at 0.7 depth at a velocity of 1 m/sec. Taking maximum and minimum peak factors of 3 each, determine:

   a. The proportionate depth of flow

   b. The velocities generated at average and minimum flow conditions.

   Neglect the variation of Manning's N with flow depth. **[7 Marks][CO2]**