## Fifth Semester B.E. Degree Examination, December 2018 (CIVIL ENGINEERING)

## COMPUTER AIDED BUILDING PLANNING AND DRAWING

Time: 3 Hours

Max. Marks: 80

Note: Answer any TWO full questions. Assume any missing data suitably.

Q1. Draw the plan and Sectional elevation for a septic tank for the following details. Depth of tank=1.75 m, Length of PCC bed 4.7m, width of PCC bed 1.9m, Thickness of PCC bed 0.15m.

Width of tank wall in brick work above PCC bed = 0.4m for a height of 0.4 m

Width of tank wall in brick work = 0.3m for a height of 0.5m

Width of tank wall in brick work = 0.2m for a height of 0.7m

The Tank consists of a RCC pre cast slab of thickness 7.5 cm.

Also show the provision for inlet and out let pipes

(30 Marks)

OR

- Q2. Draw to scale a singly reinforced beam for the following details. Size of the beam 350mm X 500 mm, clear span 5000mm, the beam is reinforced with 4 nos of 16 mm dia bars as main reinforcement, two hanger bars of 12 mm dia, and 8 mm dia 2LVS at 150 mm c/c. supported on wall 230mm thick.
  - a. Longitudinal section showing the reinforcement details.
  - b. Cross section at center of beam and at face of support

(30 Marks)

- Q3. The line diagram of a Residential building is given in Fig Q3. Draw to scale the following:
  - a. Plan at sill.
  - b. Front elevation.
  - c. Section along XX.
  - d. Schedule of openings.

(50 Marks)

OR

- Q4. The line diagram of a Hospital building is given in Fig Q4. Draw to scale the following:
  - a. Plan at sill.
  - b. Front elevation.
  - c. Section along XX.
  - d. Schedule of openings.

(50 Marks)