

--	--	--	--	--	--	--	--	--	--	--	--

Third Semester B.E Degree Examination, January 2020  
(CIVIL ENGINEERING)

## COMPUTER AIDED BUILDING PLANNING AND DRAWING

Time: 3 Hours

Max. Marks: 100

NOTE:

1. Answer any *TWO* full questions from PART A and any *ONE* full question from PART B.
2. Assume any missing data suitably.

### PART A

Q1	Draw a Cross section and plan of a RCC dog legged stair for a building having the following particulars. Clear size of stair hall= 6 ×3.5 m Floor to floor height Width of landing=1.5 m Width of each flight=1.2m Rise=150mm Tread=300mm Thickness of waist slab=160 mm Height of Floor=3.5m <p style="text-align: right;">(25 Marks)</p>
Q2	Draw the plan and Section elevation for a septic tank for the following details. Depth of tank= 1.75m, 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 0.4m. 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 7.5cm. Also show the provision for inlet and outlet pipes. <p style="text-align: right;">(25 Marks)</p>
Q3	Draw to scale a singly reinforcement beam for the following details size of the beam 350x550 mm. Clear span 5000mm. the beam is reinforced with 4nos of 16mm dia bars as main reinforcement, two hanger bars of 12mm dia, and 8mm dia 2LVS at 150mm c/c supported on walls 230mm thick. a. Longitudinal section showing the reinforcement details. b. Cross section at centre of beam and at face of support. <p style="text-align: right;">(25 Marks)</p>
Q4	Draw the Cross section of a Divided Highway in urban area having width of pavement 10.5m foot path 3m cycle track 3.8 m and reserve space 1.2 meter and area separator or divider 6m in width. <p style="text-align: right;">(25 Marks)</p>

### PART B

Q5	The line diagram of a residential building is given in Fig Q.5. Draw to scale the following: a. Plan at sill level. b. Front elevation. c. Section along AA. d. Schedule of openings <p style="text-align: right;">(50 Marks)</p>
Q6	The line diagram of Residential building is given in Fig Q.6. Draw to scale the following: a. Plan at sill level. b. Front elevation. c. Section along AA. d. Schedule of openings <p style="text-align: right;">(50 Marks)</p>

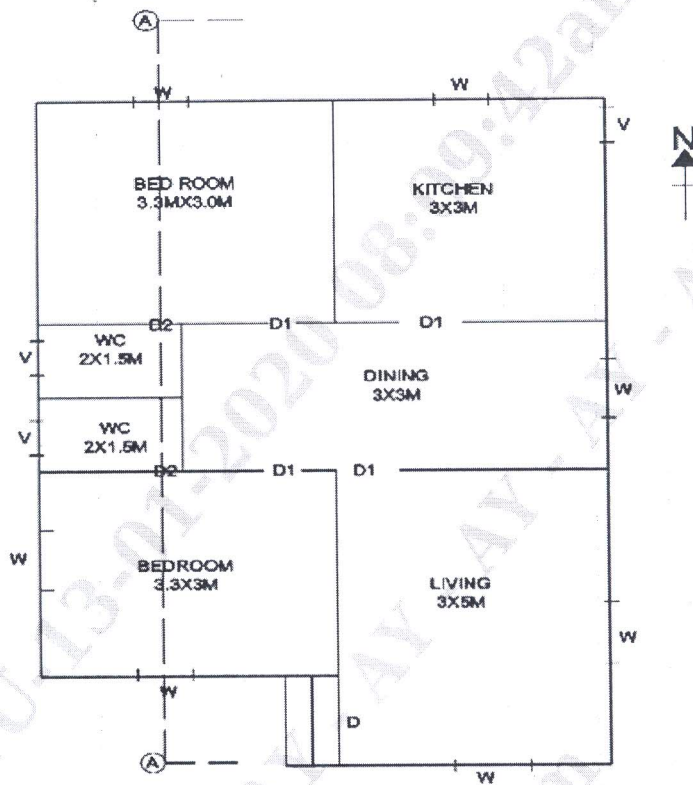


Figure Q 5.

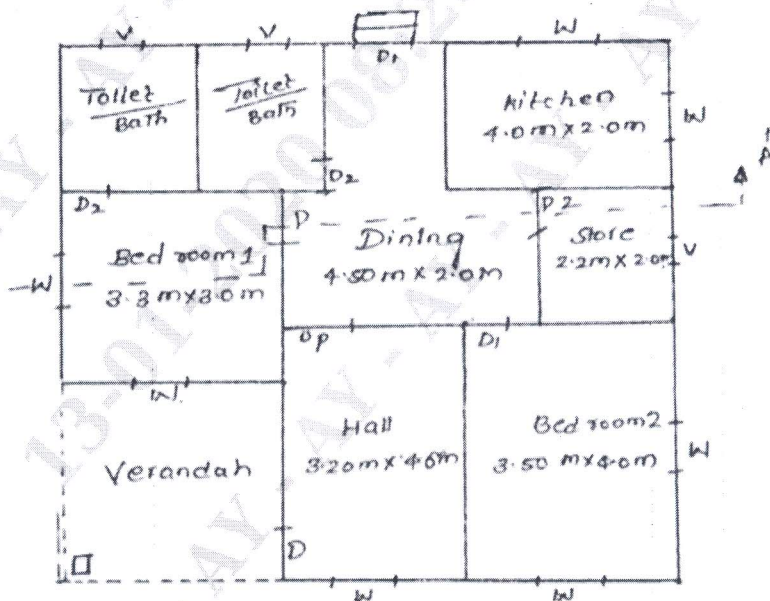


Figure Q 6.