



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	A one way slab for a hall of internal dimension 7.0×11.77m has the following details. Thickness of slab = 150mm Wall Thickness = 230mm Main steel along short span = 10 mm # @ 100mm c/c Distribution steel = 8mm # @ 150mm c/c Draw to suitable scale the following a. Plan showing the reinforcement details. b. Cross section of slab at mid span along short span. c. Cross section of slab at mid span along long span. <b>(25 Marks)</b>
Q2	The scale the elevation and cross section of English bond and Flemish bond with all the details for 12 courses. <b>(25 Marks)</b>
Q3	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 <b>(25 Marks)</b>
Q4	Draw to scale the plan and sectional elevation of both the flight of a open navel stair with rectangular well for an office building with the following data. Inside dimension of staircase = 6× 4.5m, Height between the floors = 3.75m, Thickness of the floor slab and the landing slab =150mm, Width of stair =1.5m <b>(25 Marks)</b>

### PART B

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

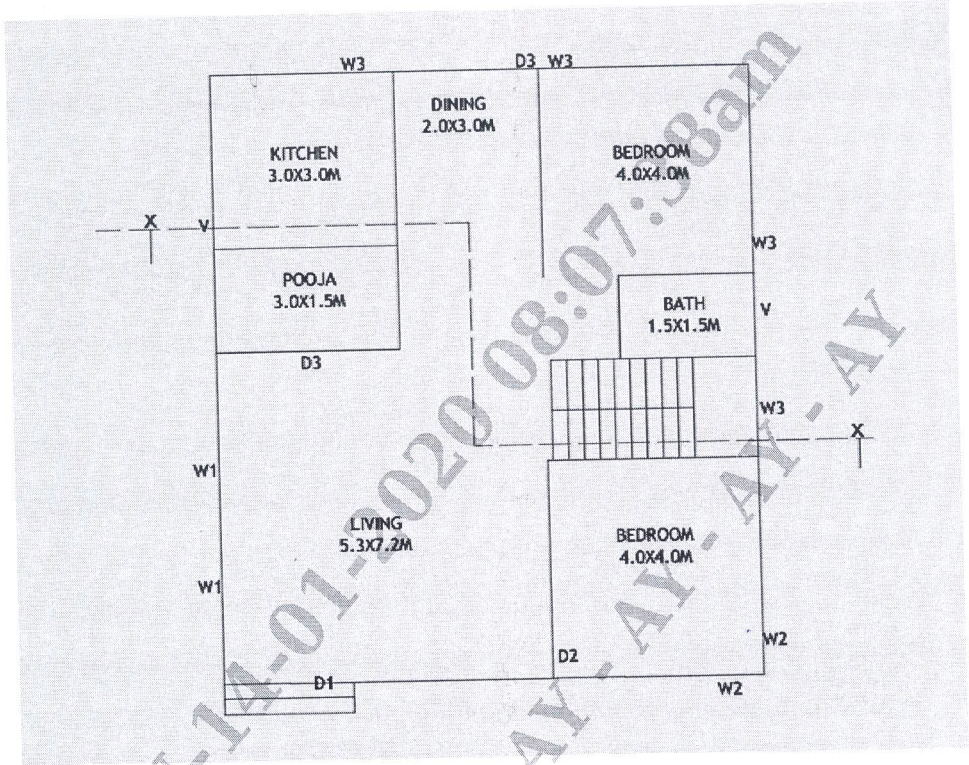


Figure Q 5.

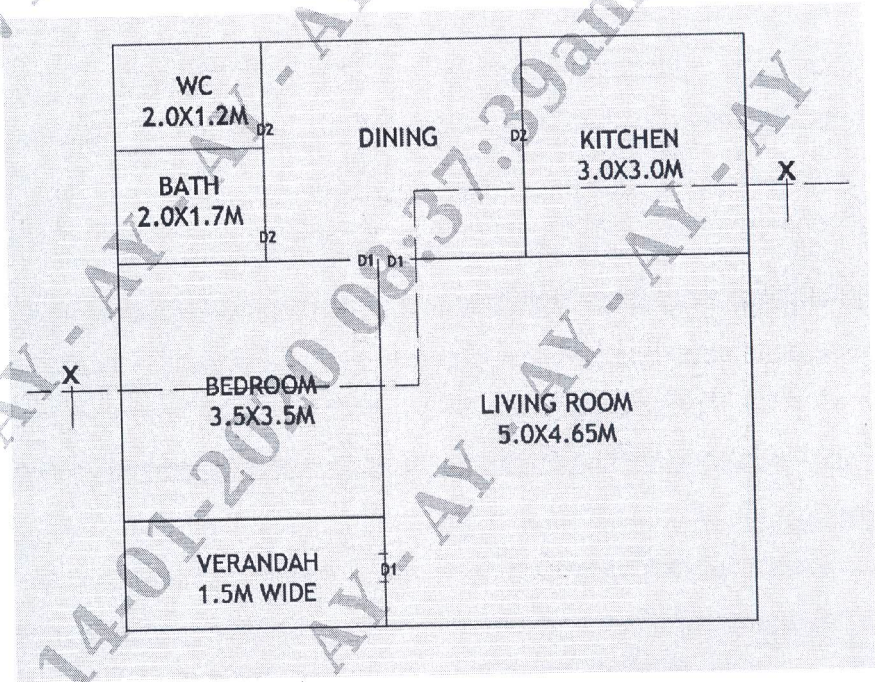


Figure Q 6.