

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

Fifth Semester B.E. Degree Examination, Jan./Feb. 2021
(CIVIL ENGINEERING)

COMPUTER AIDED BUILDING PLANNING AND DRAWING

Time: 3 Hours

Max. Marks: 100

Note: Answer any *TWO* full questions as per INTERNAL CHOICE.
2. Assume any missing data suitably.

Q1. One way continuous slab has been provided for a hall of clear dimensions 7.5m x 14.0m. The slab is supported on RCC beams. The following details are given. C/C distance of supporting beams = 3.5m. Column dimensions on which beam rest = 250mm x 500mm. C/s of beams = 250mm x 600mm. Slab thickness = 150mm. Beam depth is inclusive of slab depth. Main positive reinforcement at the end and interior panels = $12\phi @ 120$ c/c. Main negative reinforcement at all supports = $12\phi @ 120$ c/c. Distribution steel = $8\phi @ 250$ c/c. Draw cross section and plan showing the details of reinforcement (Bottom & top). **(40 marks)**

OR

Q2. Draw the cross section of the peripheral feed circular sedimentation tank mechanical sludge removal equipment for given data. Diameter of the tank = 17.5m. Depth of the tank = 3.5m. RCC wall & slab thickness = 200mm. Diameter of influent pipe, effluent pipe and sludge pipe = 200mm. Bed slope = 6%. Thickness of RCC Baffle slab = 45mm **(40 marks)**

Q3. Line diagram of School building is given in figure Q3(a). Draw to scale the following:

- Plan at sill
- Front elevation
- Section along XX.
- Schedule of Openings

(60 marks)

OR

Q4. Line diagram of Primary Health centre is given in figure Q4(a). Draw to scale the following:

- Electrical Layout
- Water Supply and Sanitation Layout

(60marks)

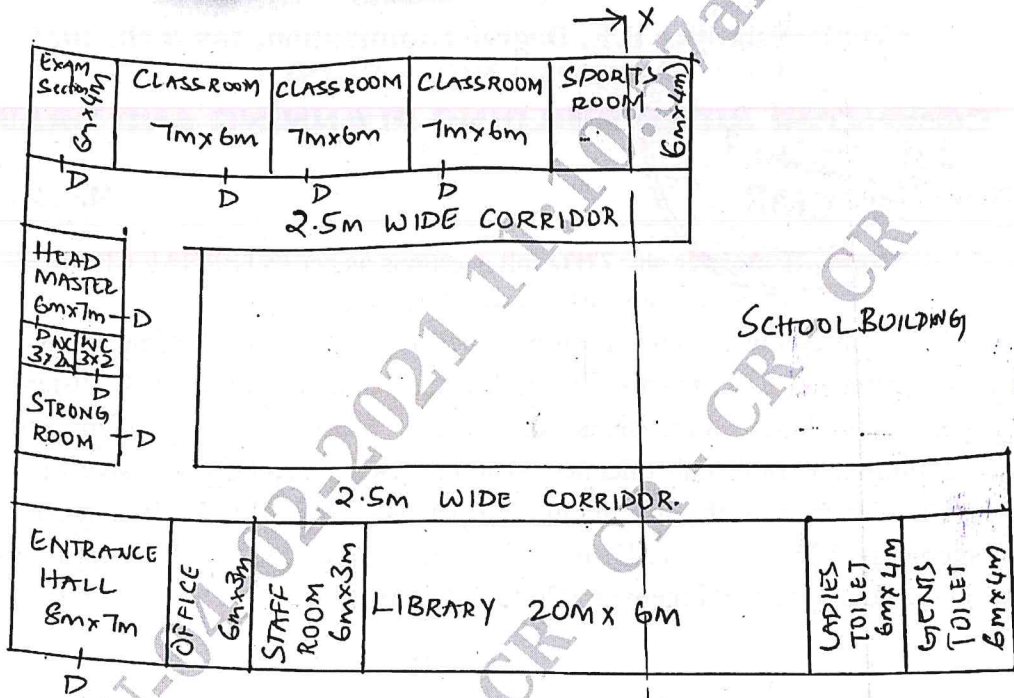


Fig 3(a)

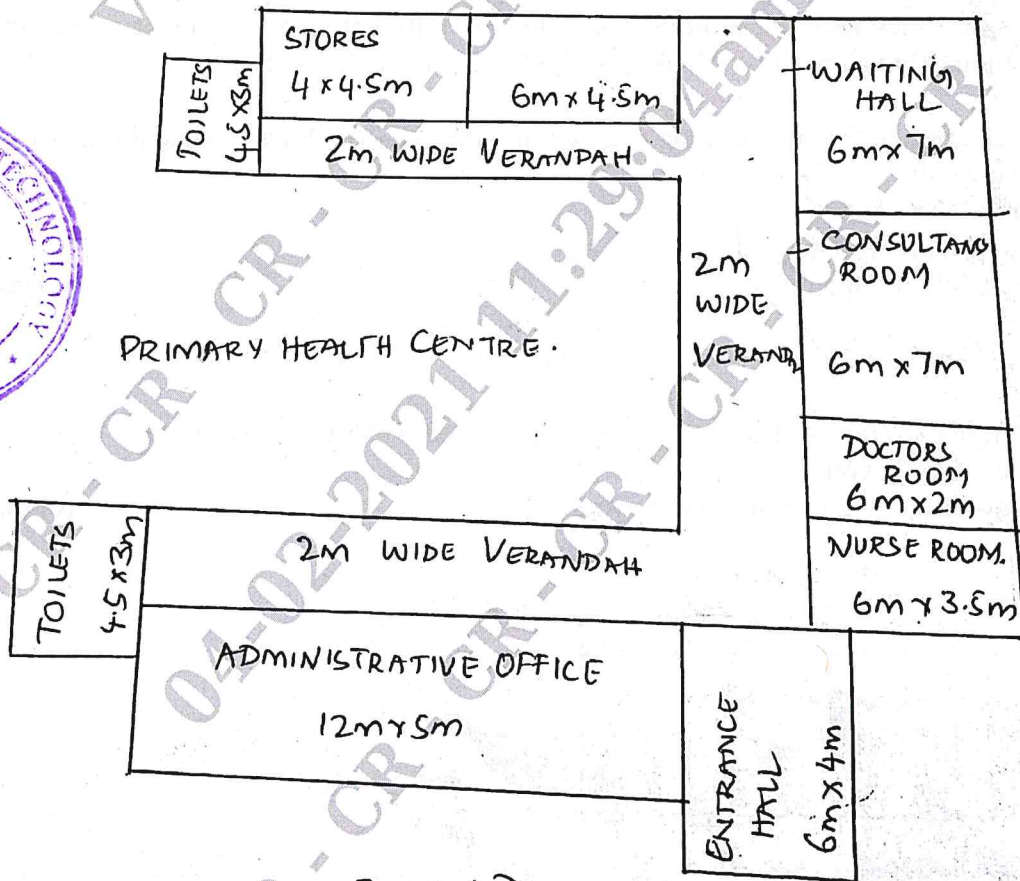
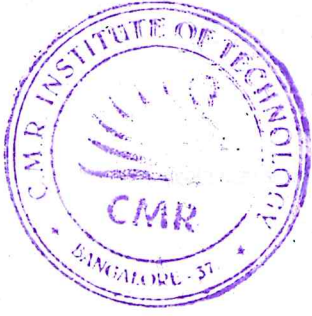


Fig 4(a)