CBCS SCHEME

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18CVL37

Third Semester B.E Degree Examination, Feb./Mar. 2022
(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 of a S.S. Masonry foundation to be provided for a load bearing wall 300mm thick in Burnt Brick Masonry in superstructure of a residential building. Use following data: i. Width of foundation = 1.20m ii. Depth of foundation below GL = 1.20m iii. Width of PCC = 1.20m iv. Thickness of PCC in 1:3:6 = 75mm. v. Width of first footing above PCC = 1.05m vi. Depth of first footing above PCC = 0.375m vii. Width of second footing = 0.90m viii. Depth of second footing = 0.375m ix. Width of third footing = 0.75m x. Depth of third footing = 0.375m xi. Width of plinth wall = 0.45m xii. Depth of plinth wall = 0.60m xiii. Thickness of DPC in 1:2:4 = 100mm.	**(25 Marks)**
Q2	Draw a layout plan of rainwater harvesting and recharging system for a (8 x 12)m area residential building leaving setback of 1.20m on all four sides as per bye laws. Show a cross section details for recharging pit.	**(25 Marks)**
Q3	Draw two consecutive courses for corner joints of the following walls in English bond. (a) One brick thick wall i.e., 200 x 200 (b) One and half thick wall i.e., 300 x 300mm	**(25 Marks)**
Q4	Sketch the cross section of a rigid pavement in heavy rainfall area having the following particulars: Width of carriage way = 3.75m Camber (@ 2%) = 38mm Width of Shoulder = 1.5m Granular sub-base (GSB) = 250mm thick Dry lean concrete sub-base = 150mm thick Paving Quality Concrete layer = 250mm thick Total thickness of the pavement = 650mm	**(25 Marks)**

PART B

Q5	Line diagram of Single Storey residential building is given in Fig. Q5. Draw to scale the following: a) Plan at sill b) Front elevation c) Section along AA. d) Schedule of Openings	**(50 Marks)**
Q6	Line diagram of Hostel building is given in Fig. Q6. Draw to scale the following: a) Plan at sill b) Front elevation c) Section along XX. d) Schedule of Openings	**(50 Marks)**

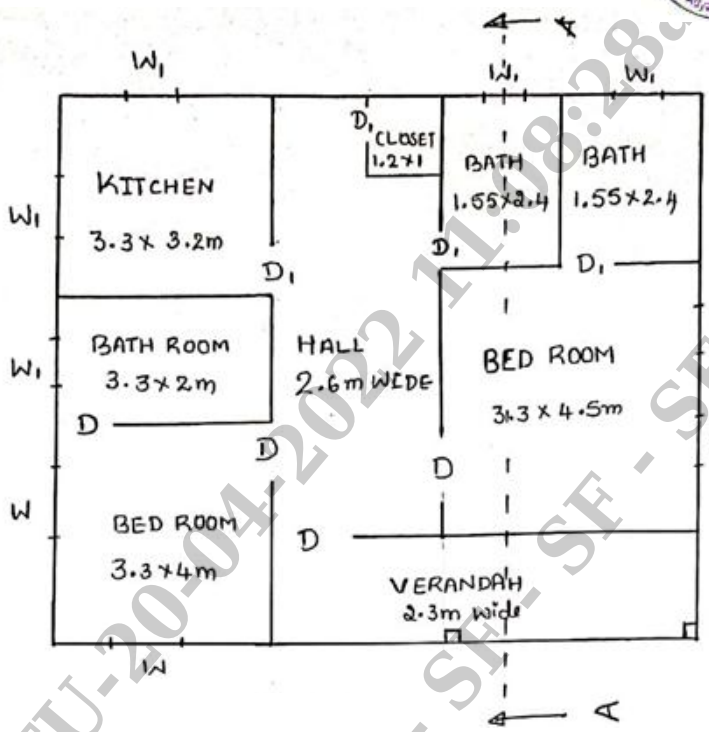

Fig. Q5

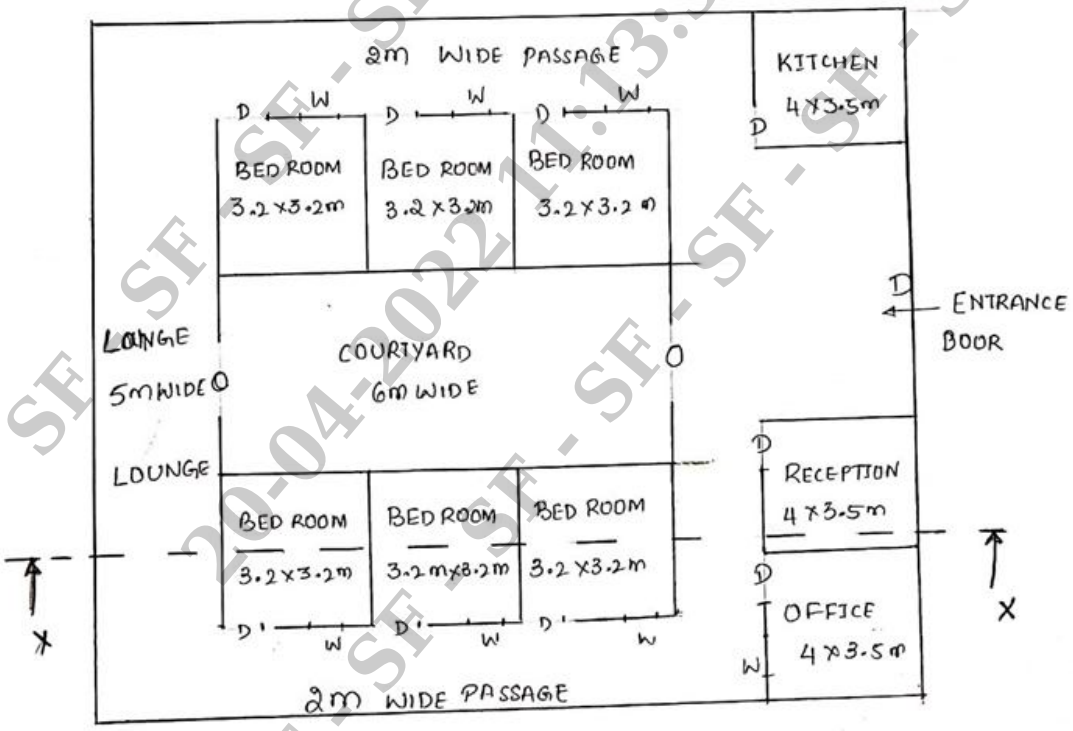

Fig. Q6