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C14-C-407

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**BOARD DIPLOMA EXAMINATION, (C-14)  
OCTOBER/NOVEMBER-2018  
DCE– FOURTH SEMESTER EXAMINATION**

**BUILDING SERVICES DRAWING**

*Time : 3 Hours ]*

[ Total Marks: 60

**PART-A**

4X5=20

- Instructions :**
1. Answer **All** questions.
  2. Each question carries **four** marks.

1. Draw the pipe connections drawing for water supply connection to a residential building from municipal water main.
2. Draw the cross-section of rain water harvesting pit.
3. Sketch the conventional signs for the following:
  - a) Lamp point.
  - b) Tube light
  - c) Bell push
  - d) Exhaust fan.
4. Draw the wiring diagram for one-way switch connection for single lamp and one wall socket.
5. Draw the line diagram for active solar water heating system.

## PART-B

2X20=40

- Instructions* : \*  
1. Answer **all** questions.  
2. Each question carries **20** marks.

6. Draw the longitudinal section of septic tank from the following specification:

**Specifications:**

- **Size of septic tank** = 5.5m x 1.8m wide and height 2.0m including a free board of 400mm
- **Foundation** = CC bed (1:3:6) of 250mm thick for the side walls and for entire base slab side walls have an offset of 150mm outside.
- **Flooring** = Finished with CM (1:3) over CC bed to a slope of 1 in 30 from inlet to baffle wall and outlet to baffle wall
- **Side walls** = The walls are constructed with brick masonry in CM (1:3). The thickness of walls for bottom 1m height is 400mm and 300mm for remaining height
- **Roof** = The tank is covered with R.C.C precast slabs 350mm wide and 75mm thick.
- **Baffle wall** = A baffle 100mm thickness and 750mm height is provided at a distance of 650mm from the outlet end.
- **Scum board** = A scum board of 100mm thick and 800mm height is provided at a distance of 1000mm from the inlet end into groove 75mm deep and 200mm clearance at top.
- **Fixtures** = 1. Inlet and outlet pipes 100mm diameter stone ware pipes with tee.  
2. Vent pipe 75mm diameter A.C. pipe.

7. Draw the sectional elevation and plan of a lift for a multi-storeyed building (Not to scale)

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