

# 4429

# BOARD DIPLOMA EXAMINATION, (C-14) OCT/NOV-2016

## DCE—FOURTH SEMESTER EXAMINATION

#### BUILDING SERVICES DRAWING

Time: 3 hours [ Total Marks: 60

### PART—A

 $4 \times 5 = 20$ 

**Instructions**: (1) Answer **all** questions.

- (2) Each question carries four marks.
- **1.** Draw the plan of a water supply pipe network diagram for a toilet.
- **2.** Draw the cross-section of standard rain water harvesting pit for a residential building.
- 3. Draw the wiring diagram connections to 3-phase motors.
- 4. Draw the electrical layout in kitchen and label parts.
- **5.** Draw the plan for ducting an air conditioning system for a bed room.

#### PART—B

20×2=40

**Instructions**: (1) Answer **all** questions.

- (2) Each question carries **twenty** marks.
- **6.** Draw the plan and longitudinal section of a septic tank to a scale of 1:20 for the given specifications:

Internal size =  $800 \, \text{mm} \times 2400 \, \text{mm}$ 

Brick masonry wall thickness = 230 mm

Thickness of CC bed = 600 mm

CC offset for masonry walls = 300 mm

Depth of water = 900 mm

Free board = 300 mm

RCC roof panels = 100 mm thick and 400 mm wide fitted with bent handles for lifting

Scum board = RCC precast slab 75 mm thick fixed at a height of 300 mm from floor level and extending up to a height of 150 mm below roof. This shall be fixed at a distance of 800 mm from inside of wall at inflow end into a groove of 75 mm deep.

Baffle wall = RCC precast slab 75 mm thick kept on floor at a distance of 600 mm from inside of wall at outflow end. The top of baffle shall be 150 mm below water level.

Inflow and outlet pipe = 100 mm dia. Tee shaped pipes

Vent pipe = 50 mm dia. AC pipe with a cowl extending to a height of 2·0 m above GL.

Masonry pedestal = 450 mm dia. circular brick masonry pedestal shall be provided around the vent pipe up to GL.

**7.** Draw the typical layout of a lift well and motor with lift machine accessories.

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