



C14-C-407

4429

BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—2016
DCE—FOURTH SEMESTER EXAMINATION
BUILDING SERVICES DRAWING

Time : 3 hours]

[Total Marks : 60

PART—A

4×5=20

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

(2) Each question carries **four** marks.

(3) Any missing data may be assumed suitably.

1. Draw the plan of dispersion trench. Assume any data necessary.
2. Draw the plan of harvesting pit.
3. Draw the wiring diagram for the connection to 3-phase motor.
4. Draw the conventional signs for the following items of electrical engineering :
 - (a) Television receiving set
 - (b) Electric unit heater
 - (c) Light plug
 - (d) Control board
5. Draw the line diagram for a solar water heater.

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PART—B

20×2=40

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

(2) Each question carries **twenty** marks.

(3) The drawing must be to the scale.

(4) Any missing data may be assumed suitably.

6. Draw the plan and longitudinal section of a septic tank to a scale of 1 : 20 from the given specifications :

Internal dimensions 900 mm 2750 mm

Brick masonry wall thickness 230 mm

Thickness of CC bed 500 mm

CC offset for masonry walls 300 mm

Depth of water 1000 mm

Free board 300 mm

RCC roof panels 100 mm thick and 450 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 900 mm from inside of wall at inflow end into a groove of 75 mm depth.

Standing baffle = 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 sectional elevation of a lift shaft for multistoried building with a suitable scale :

Depth of pit 1.3 m

Floor to floor height 3.0 m

Top floor height 2.1 m

RCC slab thickness 200 mm
RCC wall thickness 150 mm
Size of machine room 2.25 m 2.135 m
Size of lift car inside 900 mm 1100 mm
Size of room 1500 mm 1800 mm
No. of floors 5
Lift entrance 760 mm

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