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C20-EE-407

7449

BOARD DIPLOMA EXAMINATION, (C-20)

JUNE/JULY—2022

DEEE – FOURTH SEMESTER EXAMINATION
ELECTRICAL ENGINEERING DRAWING-II

Time : 3 hours]

[Total Marks : 60

PART—A

5×4=20

Instructions : (1) Answer all questions.
(2) Each question carries five marks.

1. Draw neatly the sectional view of HSL-type cable and label the parts.
2. Draw the high head hydro power plant and name the parts.
3. Draw the neat sketch of valve type lightning arrestor and label the parts.
- * 4. Draw the single line diagram of 220/132 KV SS and label the parts.

PART—B

8×5=40

Instructions : (1) Answer all questions.
(2) Each question carries twenty marks.
(3) All dimensions are in mm.

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5. Draw the sectional elevation and plan of 1-phase 230/110 V, 50 KVA transformer, Single stepped core type transformer with following dimensions :

Circumference circle dia : 75 mm

Distance between cores centers : 150 mm

L.T. windings

Outer dia : 90 mm

Inner dia : 80 mm

H. T. winding

Outer dia : 135 mm

Inner dia : 110 mm

Height of Bakelite ring : 20 mm

Yoke height : 80 mm

L. T. winding height : 230 mm

H. T. winding height : 230 mm

Total transformer height : 400 mm

(Assume all other missing data and draw to a suitable scale.)

(OR)

(a) Draw the line diagram of a nuclear power station and label the parts.

(b) Draw a 33/11 KV substation and label the parts.

6. Draw the half sectional end view of a 7 HP, 400 V, 50 Hz, 3-phase, 1440 rpm.

The main dimensions are given below :

Outside diameter of the stator stamping : 288 mm

Inside diameter of the stator stamping : 216 mm

Thickness of the stator frame : 31 mm

Stator slots - Type Open

Number : 36

Size : 18 mm × 12 mm

Air gap : 2 mm

Outside diameter of the rotor stampings : 212 mm

Inside diameter of the rotor stamping : 36 mm

Rotor slots - Type Open

Number : 36

Size : 18 × 12 mm

Shaft diameter at centre : 36 mm

at bearing : 32 mm

Ducts stator frame 8 rotor 4

Spacing between ducts equally spaced

Assume all other missing data and draw to a suitable scale

(OR)

Develop a Wave winding for the stator 3ph AC induction motor having 24 slots with one conductor per slot and 4 poles.



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