

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018

ELECTRICAL ENGINEERING DRAWING

[Time : 3 hours

(Maximum marks : 100)

[Note :—1. All dimensions are in millimeter.
2. Missing data may be assumed.]

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. Draw the symbol of a fuse.
2. Why interpoles are used in DC machines.
3. Draw any two shape of stator slots in Alternator.
4. Name any two types of winding used in core type transformer.
5. Name any two main parts of induction motor.

(5×2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. Draw plate earthing with dimensions.
2. Draw a single line diagram for 11KV substation.
3. Draw the sectional view of assembly of a interpole in a DC machine.
4. Draw cylindrical type rotor in alternator.
5. Draw a squirrel cage rotor mounted on shaft.
6. Draw core type transformer.
7. Draw a single step core of transformer (d = 280).

(5×6 = 30)

PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 30 marks.)

UNIT — I

III Draw a layout of 220KV substation with input feeder - 2Nos., Output feeder - 3Nos.

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OR

IV Draw the half sectional end view of a 3phase alternator. The rotor is of salient pole type.

1. Outside diameter of the stator stampings = 400

2. Inside diameter of the stator stampings = 290

3. Slots

a. Type = open type

b. Number = 48

c. Size = 32×12

4. Air gap = 2

5. Pole :

a. Pole width = 70

b. Pole height with shoe = 75

c. Shoe height = 18

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UNIT — II

V Draw the half sectional end view of a squirrel cage induction motor.

1. Outside diameter of stator = 250

2. Inside diameter of stator = 164

3. Stator slots

a. Type = Open

b. Number = 28

c. Size = 18×12

4. Air gap = 2

5. Outside diameter of rotor = 160

6. Inside diameter of rotor. = 32

7. Rotor slots :

a. Type = Open

b. Number = 28

OR

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VI Draw the sectional elevation and plan of a single-phase transformer with the following data.

1. Cross section of the core = One step core
2. Diameter of the circum circle = 75
3. Distance between the core centres = 150
4. Height of yoke = 80
5. Outside diameter of L T coil = 90
6. Inside diameter of L T coil = 80
7. Height of LT winding = 230
8. Outside diameter of HT coil = 135
9. Inside diameter of HT coil = 110
10. Height of HT winding = 230
11. Total height of transformer = 400

30