TED (15/19) -4037
(Revision- 2015/19)

A22-00411

Reg.No…….....
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE –APRIL -2022.

ELECTRICAL ENGINEERING DRAWING

(Maximum Marks : 100) [Time : 3 hours]

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

PART–A

(Max. Marks:10) Marks

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

1. Draw the symbol of a two-winding transformer.
2. Why inter poles are used in DC machines.
3. Name different types of rotors in induction machine.
4. Name any two types of winding used in core type transformer.
5. What type of winding is used in shell type transformer.

(5x2=10)

PART - B

(Max. 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 66 KV substation.
3. Draw the sectional view of assembly of interpole in a DC machine.
4. Draw a neat sketch of a salient pole in alternator.
5. Draw a squirrel cage rotor mounted on shaft.
6. Draw a neat sketch of single layer helical winding in transformer
7. Draw a single step core of transformer.(d=280)

(5x6 =30)

PART - C
(Max. Marks: 60)

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

UNIT I

III Draw a layout of 400 KV substation with incoming feeders – 2 Nos.,
Outgoing feeders: 220 KV – 4 Nos. and 110 KV – 1 No. (30)

OR

IV Draw the half sectional end view of a 3 phase 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 = 32x12
4. Air gap = 2
5. Pole - a. Pole width = 70
   b. Pole height with shoe = 75
   c. Shoe height = 18 (30)

UNIT- II

V Draw the half sectional end view of a slip induction motor

1. Outside diameter of stator = 284
2. Inside diameter of stator = 212
3. Stator slots - a. Type = Open
   b. Number = 30
   c. Size =18x12
4. Air gap = 2
5. Outside diameter of rotor =208
6. Inside diameter of rotor =32
7. Rotor slots - a. Type = Open
   b. Number =30
   c. Size =12x8 (30)

OR

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 LT coil	= 90
6.	Inside diameter of LT 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)

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