



C09-EE-408

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BOARD DIPLOMA EXAMINATION, (C-09)

MARCH / APRIL - 2019

DEEE - IV SEMESTER EXAMINATION

ELECTRICAL ENGINEERING DRAWING

Time : 3 Hours]

[Total Marks : 60

PART - A

4×5=20

- Instructions :**
- (1) Answer *ALL* questions.
 - (2) Each question carries *FIVE* marks.
 - (3) All dimensions are in mm.

- 1 Draw neat sketch of elevation for flange coupling.
- 2 Draw neat sketch of D.C Machine yoke with poles.
- 3 Draw the neat of sketch plinth mounted transformer.
- 4 Draw 132 KV double circuit steel tower.

PART - B

2 × 20 = 40

- Instructions :**
- (1) Answer any *two* questions.
 - (2) Each question carries *twenty* marks.

- 5 (a) Draw the half sectional end view of 50 kw DC generator **10**
whose dimensions are
Thickness of the yoke = 5cm
No of main poles = 4

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[Contd...

Total height of the main pole = 14
 Length of the pole = 19cm
 Main pole winding = 7×3
 No of inter poles = 4
 Air gap = 4
 Pole arc to pole pitch = 63%
 External dia of armature lamination = 38cm
 Internal dia of armature lamination = 20cm
 Size of the slot = 3.5×1.5 cm
 No of slots 32
 Shaft dia = 6 cm
 Assume any other missing data.

- (b) Develop three phase wave winding for an AC machine **10**
 having 24 slots, one conductor per slot and 4 poles.
- 6** Draw the sectional elevation and plan of a single phase **20**
 5 kVA, 230/110V transformer with the following Data :
- Cross sectional of the core = single stepped core
 Diameter of the circle = 7.5 cm
 Distance between core centres = 15 cm
 Height of the yoke = 8
 Outer diameter of LT winding = 9 cm
 Inner diameter of LT winding = 8.0 cm
 Height of LT winding = 23
 Outer diameter of HT winding = 13.5 cm
 Inner diameter of HT winding = 11 cm
 Height of HT winding = 23
 Overall Height of yoke and core = 40
 Assume any other missing data

- 7 Draw the half sectional elevation and end view of a 5HP, 400 Volts, Phase 1440 rpm, squirrel cage induction motor 20
- (i) Outer diameter of stator stamping = 230
 - (ii) Inside diameter of stator stamping = 164
 - (iii) Stator core length = 120
 - (iv) Thickness of stator core frame = 25
 - (v) Slots
 - (a) Type open type
 - (b) Number 36
 - (c) Size 15/8
 - (vi) Air gap 2
 - (vii) Outer diameter of rotor stamping = 160
 - (viii) Inside diameter of rotor stamping = 35
 - (ix) Shaft diameter
 - (a) At center-35
 - (b) At bearing-30

Assume any other missing data. All the dimensions are in mm.
