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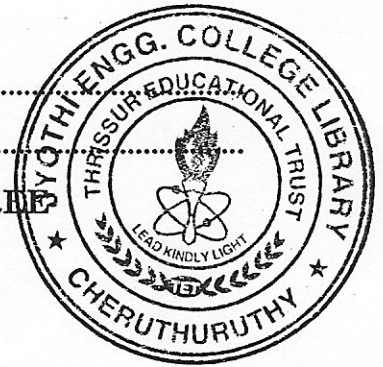
Name.....

Reg. No.....

**SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, JUNE 2010**

EE 04 606—ELECTRICAL ENGINEERING DRAWING

(2004 admissions)



Time : Three Hours

Maximum : 100 Marks

1. (a) Draw the winding diagram in developed form for a single layer lap winding for 32 slots and 4 poles. Also draw the sequence diagram to show the position of the brushes.

Or

- (b) Draw a developed concentric winding diagram of an induction motor having 24 slots, for 3 phase 4 poles operation.

(25 marks)

- II. (a) Draw the sectional plan, Sectional elevation and sectional side elevation of a core of dia. 22 cm having 3-step core construction, height of core = 48 cm thickness of end plate 3 mm.

Or

- (b) Draw the layout of a capacitance power substation.

(25 marks)

- III. Draw to a suitable scale a heat and sectional view of the following as per main dimensions given below in centimetre scale. Winding of the field and armature need not to be shown.

D.C. 6 pole, 150 H.P. motor.

Armature diameter = 55

Number of slots = 61

Size of slot = 1×4.5

Slot open type

Depth below slot = 9

Commutator diameter = 42

No. of commutator bars = 244

Air gap length (radial) = 0.5 at main pole and 0.6 at interpole.

Main pole laminated, breadth 14, arc 20, height with shoe 21.

Inter pole breadth = 4

Outside diameter of Yoke = 115

Shaft diameter at bearing = 10

The method of fixing the pole lamination and the pole to the yoke should be clearly shown.

(50 marks)