UE25EE141A – UNIT 4 – ASSIGNMENT – ANSWER KEY

Lecture 60

    1.

    $\phi = 0.432$ **mWb**

Lecture 62

    1.

    i) $E_1 = 300V$

          $E_2 = 200V$

    ii) $I_1 = 16.67A$

          $I_2 = 25A$

    2.

    i) $E_2 = 500V$

    ii) $B_m = 0.938$ **T**

Lecture 64

    1.

    i) 96.38 %

    ii) 95.69 %

Lecture 65

1.

a) **240A, 498V, 119.52kW**

b) **720A, 166V, 119.52kW**

Lecture 67

1.

φ = 20 mWb

Lecture 68

1.

i) Back EMF = 468V

ii) Speed of the motor = 1075.86 rpm

iii) Torque = 332.32 Nm

Lecture 69

1.

1040V

4800 rpm