

AINA OLUWASEMIKOLE E.  
ELECT/ELECT ENGINEERING

17/ENG04/008

EEE 326 TEST

QUESTION 3

$f = 80 \text{ Hz}, I = 0.7 \text{ A}, E = 220 \text{ V}$

①  $f = P \omega / 120$

$S_D = 2000 \text{ rpm} / 120$

$P = 8$

$S_D = 3 \text{ N} / 120$

$= 2000 \text{ rpm}$

②

$\cos \theta = \frac{P}{\sqrt{3} V I_0}$

$= \frac{8}{\sqrt{3 \times 220 \times 0.7}}$

$= \frac{4}{21.870}$

$= 0.18295$

③

$T_{\text{brake}} = 0.25 \times 0.25 \times 15 = 0.94 \text{ lbs-ft}$

④

Three-phase induction motor

AINA OLUWASEMILORE E.  
ELECT/ELECT ENIN

AINA OLUWASEMILORE

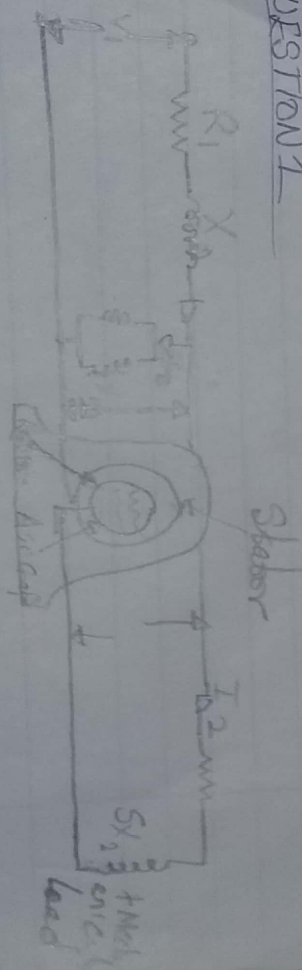
17/EN904/005

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EEI 326 TRST

QUESTION 1

(c)



(d)