

Solutions

OP code: 24863

Q1a) $N_s = 120f/P = 120*50/6 = 1000 \text{ rpm}$ 2M

$N = 950 \text{ rpm}$

Slip S = $(N_s - N)/N_s = (1000 - 950)/1000 = 0.05$ 3M

b) $E_b = \frac{\pi z N}{60} P/A$

c) Any 5 applications

d) Diagram 2M

Explanation 3M

Q2 a) Diagrams step by step 5M

Explanation 3M

b) Diagram 3M

Explanation 4M

Q3a) Diagram 3M

Explanation 5M

b) Diagram 3M

Explanation 4M

Q4a) Types 3M

Explanation 5M

b)

Q5a) 7 Comparisons 7M

b) Characteristics 3M

Explanation 5M

Q6a) Diagram 2M

Explanation 3M

b) Diagram 2M

Explanation 3M

c) Diagram 2M

Explanation 3M