higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NASIENRIGLYN

NASIONALE SERTIFIKAAT

MULTIDISSIPLINÊRE TEKENKANTOORPRAKTYK: ELEKTRIESE TEKENWERK

13 APRIL 2018

Hierdie nasienriglyn bestaan uit 6 bladsye.

Kopiereg voorbehou

OPSOMMING VAN PUNTETOEKENNING							
ELEMENT	**VRAAG**	**1**	**2**	**3**	**4**	**5**	**%**
Gebalanseerde uitleg en grootte		0	5	5	3	4	**17%**
Korrektheid		10	5	10	5	7	**37%**
Byskrifte		0	15	5	2	5	**27%**
Lynwerk en netheid		0	5	5	5	4	**19%**
TOTAAL:		**10**	**30**	**25**	**15**	**20**	**100%**

VRAAG 1: ALGEMENE TEORIE

1.1 Vereiste vloed:

$$\Phi = \frac{E_{av} \times A}{M \times CU \times LLD}$$

$$= \frac{500 \times (7 \times 10)}{0,8 \times 0,54 \times 0,8}$$

$$= 101\,273,148 \text{ lm}$$

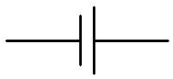
(5)

1.2
1.2.1 16 mm²
1.2.2 6 – 10 mm²
1.2.3 4 mm²
1.2.4 2,5 – 4 mm²
1.2.5 1,5 mm²

(5 × 1) (5)
[10]

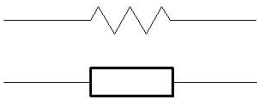
VRAAG 2: GRAFIESE SIMBOLE EN ELEKTRONIESE DIAGRAMME

2.1



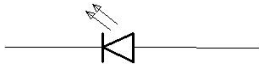
Sel

2.2



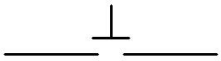
Resistor

2.3



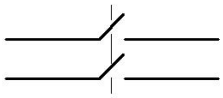
LED

2.4



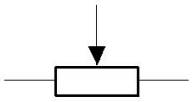
Drukskakelaar

2.5



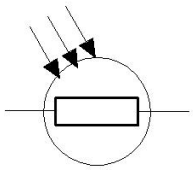
Tuimelaarskakelaar

2.6



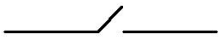
Voorafgestelde resistor

2.7



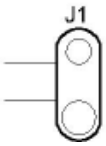
LDR

2.8



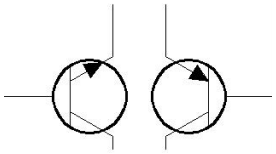
Knikskakelaar

2.9



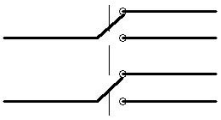
Batteryklem

2.10



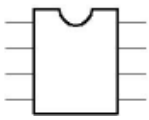
Transistor

2.11



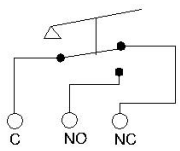
Skuifskakelaar

2.12



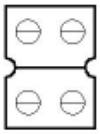
Geïntegreerde stroombaan

2.13



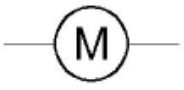
Mikroskakelaar

2.14



Konnektor

2.15

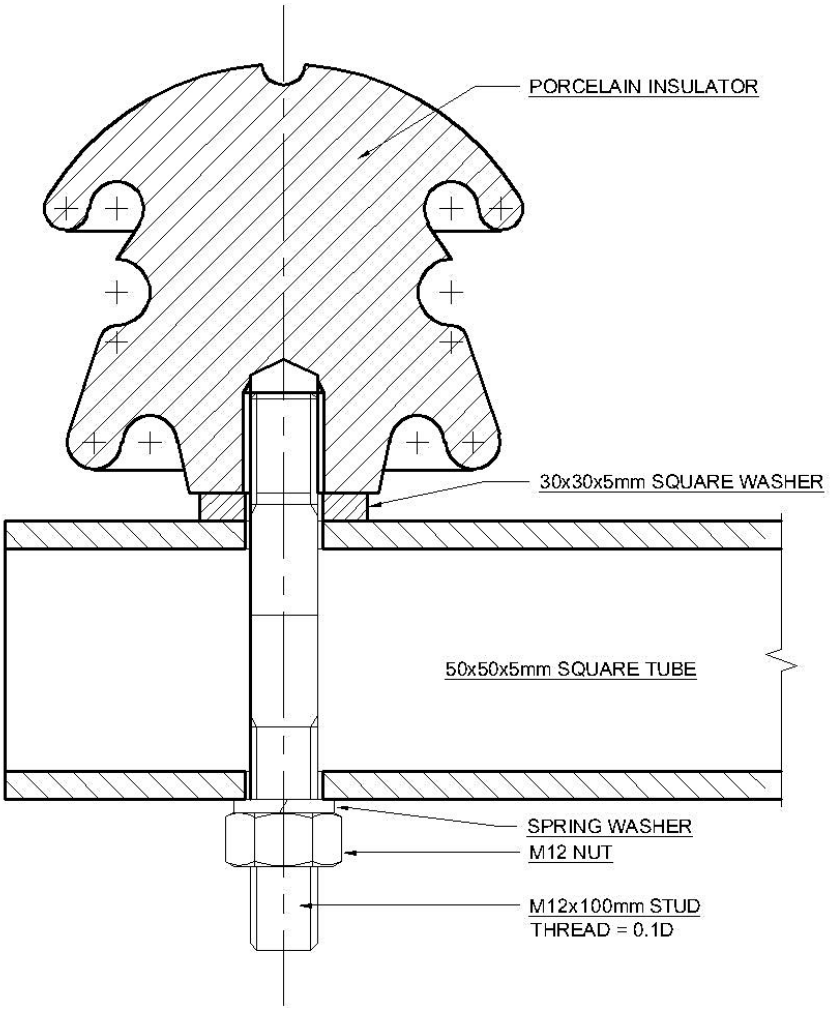


Motor

Gebalanseerde uitleg en grootte	5 × 1 = 5	
Korrektheid	5 × 1 = 5	
Byskrifte	15	
Lynwerk en netheid	5 × 1 = 5	**[30]**

[30]

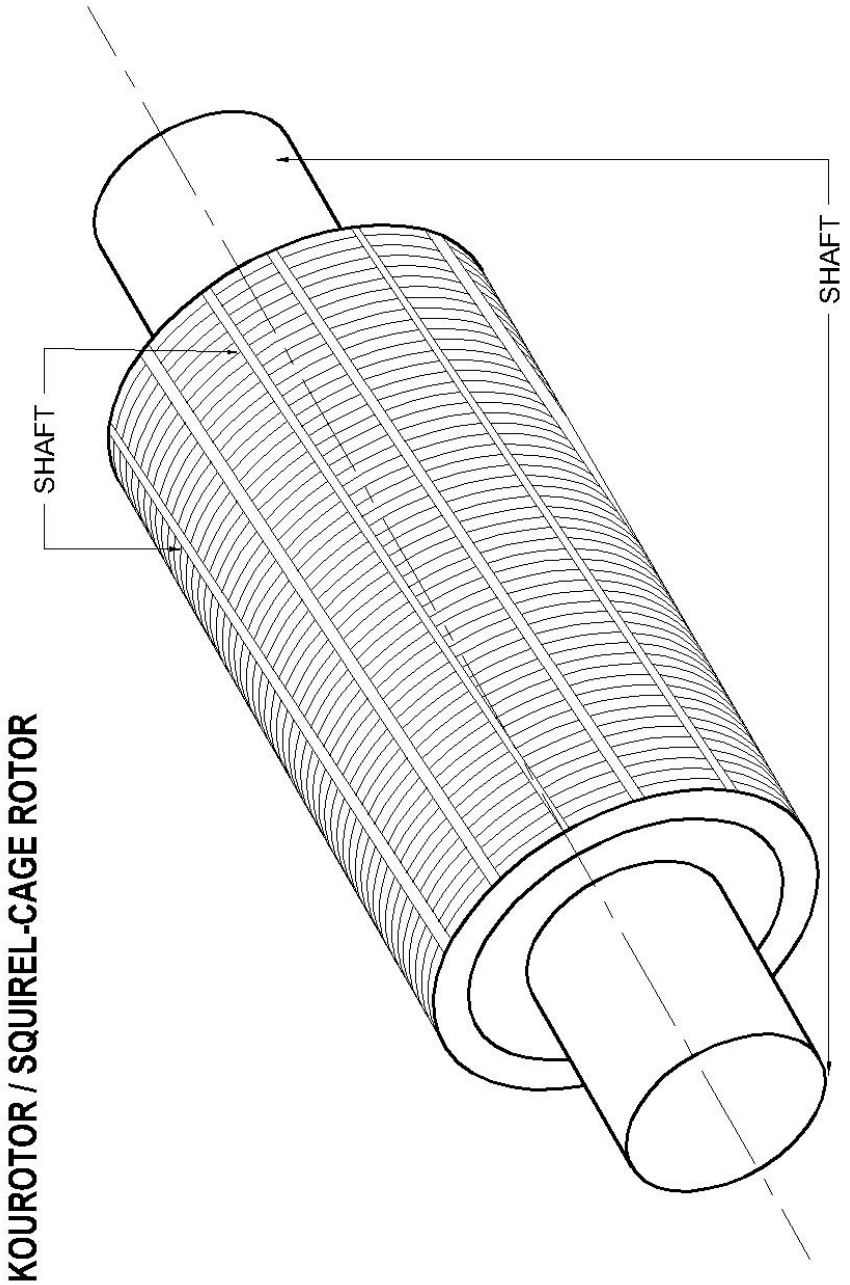
VRAAG 3: OPWEKKING EN DISTRIBUSIE VAN ELEKTRISITEIT



Gebalanseerde uitleg en grootte	**5**	
Korrektheid	**10**	
Byskrifte	**5**	
Lynwerk en netheid	**5**	**[25]**

[25]

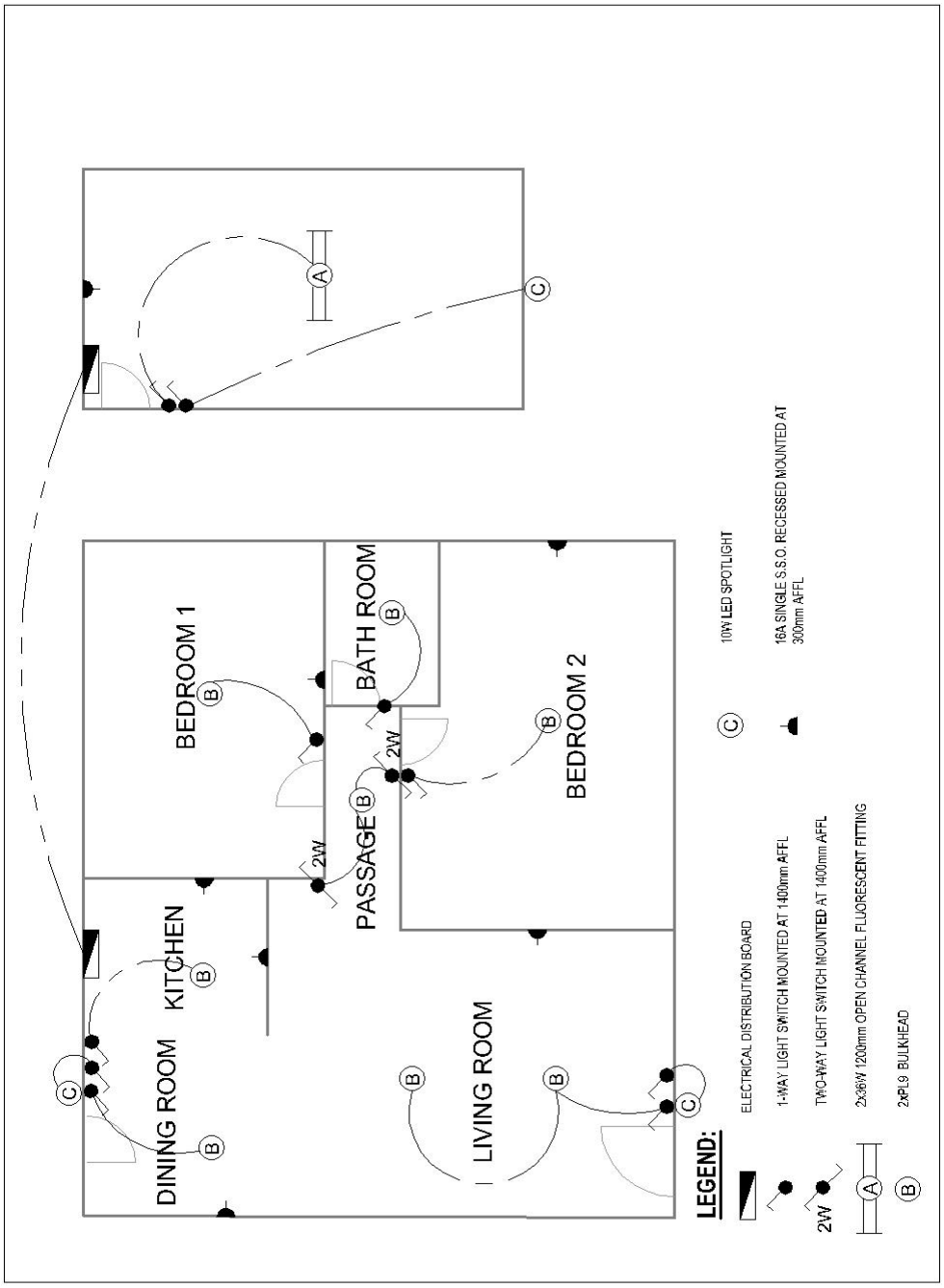
VRAAG 4: ELEKTRIESE MOTORS EN BEHEERTOERUSTING



Gebalanseerde uitleg en grootte	**3**	
Korrektheid	**5**	
Byskrifte	**2**	
Lynwerk en netheid	**5**	**[15]**

[15]

VRAAG 5: BEDRADING VAN PERSELE



Gebalanseerde uitleg en grootte	**4**	
Korrektheid	**7**	
Byskrifte	**5**	
Lynwerk en netheid	**4**	**[20]**

[20]

TOTAAL: 100

Kopiereg voorbehou