

RESISTOR COLOUR CODES ASSESSMENT 1

Electrical Technology Grade 10

25th August 2009

N.B This paper consists of 4 pages

Learning Outcomes					
LO1:	Assessment Standards				
		10.1.1 <input type="checkbox"/>	101.2 <input type="checkbox"/>	10.1.3 <input checked="" type="checkbox"/>	10.1.4 <input checked="" type="checkbox"/>
LO2	10.2.1 <input checked="" type="checkbox"/>	10.2.2 <input checked="" type="checkbox"/>	10.2.3 <input type="checkbox"/>	10.2.4 <input type="checkbox"/>	10.2.5 <input checked="" type="checkbox"/>
LO 3	10.3.1 <input checked="" type="checkbox"/>	10.3.2 <input type="checkbox"/>	10.3.3 <input type="checkbox"/>	10.3.4 <input checked="" type="checkbox"/>	10.3.5 <input type="checkbox"/>
	10.3.6 <input checked="" type="checkbox"/>	10.3.7 <input type="checkbox"/>	10.3.8 <input type="checkbox"/>	10.3.9 <input type="checkbox"/>	10.3.10 <input type="checkbox"/>
	10.3.11 <input type="checkbox"/>	10.3.12 <input type="checkbox"/>	10.3.13 <input type="checkbox"/>		
LO 4	10.4.1 <input checked="" type="checkbox"/>	10.4.2 <input type="checkbox"/>	10.4.3 <input type="checkbox"/>	10.4.4 <input type="checkbox"/>	
Critical Outcomes					
<input checked="" type="checkbox"/> CO 1 Problem Solving	<input type="checkbox"/> CO 2 Team Work		<input checked="" type="checkbox"/> CO 3 Sense of own responsibility	<input checked="" type="checkbox"/> CO 4 Research skills	
<input checked="" type="checkbox"/> CO 5 Communication Skills	<input type="checkbox"/> CO 6 Awareness of Technology and Environment		<input type="checkbox"/> CO 7 Creation of world micro vision		

Question 1

Name the colours, in order, used to represent the following resistance values:-
Choose the correct **alphabet** only

- 1.1 **2 200Ω ±5%**
 [A] Blue: Red: Brown: Brown
 [B] Orange: Orange: Red: Gold
 [C] Yellow: Blue: Orange:
 [D] Red: Red: Red: Gold
- 1.2 **10Ω ±1%**
 [A] Brown: Blue: White: Silver
 [B] Brown: Black: Brown: Brown
 [C] Brown: Red: Red: Gold
 [D] Brown: Black: Black: Brown
- 1.3 **33 000Ω ±1%**
 [A] Orange: Yellow: Orange: Brown

- [B] Red: Orange: Orange: Brown
- [C] Orange: Orange: Yellow: Brown
- [D] Orange: Orange: Orange: Brown

1.4 **220 Ω \pm 10%**

- [A] Red: Red: Orange: Silver
- [B] Red: Orange: Red: Silver
- [C] Red: Brown: Red: Silver
- [D] Red: Red: Brown Silver

1.5 **9 200 Ω \pm 2%**

- [A] White: Blue: Orange: Red
- [B] White: Red: Orange: Red
- [C] White: Blue: Red: Red
- [D] White: Red: Red: Red

1.6 **0,56 Ω \pm 10%**

- [A] Blue: Green: Silver: Silver
- [B] Blue: Red: Green: Silver
- [C] Blue: Red: Silver: Silver
- [D] Green: Blue: Silver: Silver

1.7 **56 x 10⁸ Ω \pm 5%**

- [A] Green: Green: Gold: Gold
- [B] Green: Violet: Gold: Gold
- [C] Green: Grey: Gold: Gold
- [D] Green: Blue: Grey: Gold

1.8 **80 Ω \pm 1%**

- [A] Grey: Yellow: Black: Brown
- [B] Grey: Black: Black: Brown
- [C] Grey: Grey: Black: Brown
- [D] Grey: Black: Black: Brown

1.9 **51 Ω \pm 2%**

- [A] Brown: Green: Red: Gold
- [B] Green: Brown: Red: Red
- [C] Red: Brown: Green: Gold
- [D] Green: Brown: Black : Red

1.10 **420 000 000 Ω \pm 10%**

- [A] Yellow: Violet: Red: Silver
- [B] Red: Yellow: Violet: Silver
- [C] Yellow: Red: Violet: Red
- [D] Yellow: Red: Violet: Silver

Write down the resistance values which the following group of colours represent:-

N.B. Choose the correct alphabet only.

1.11 **Brown: Black: Gold: Gold**

[A] 105 Ω

[B] 10 Ω

[C] 100 Ω

[D] 1 Ω

1.12 **Brown: Black: Silver: Silver**

[A] 105 Ω

[B] 10 Ω

[C] 100 Ω

[D] 0,1 Ω

1.13 **Red: Blue: Orange: Red**

[A] 2600 Ω

[B] 260 Ω

[C] 26 Ω

[D] 26K Ω

1.14 **Orange: Orange: Blue: Gold**

[A] 33 Ω

[B] 330 Ω

[C] 330 000 Ω

[D] 33M Ω

1.15 **Grey: Blue: Green: Brown**

[A] 8K6 Ω

[B] 860M Ω

[C] 86M Ω

[D] 8,6M Ω

1.16 **Violet: White: White: Silver**

[A] 7G9 Ω

[B] 79K Ω

[C] 79M Ω

[D] 79G Ω

1.17 White: Violet: Violet: Gold

- [A] $970\text{M}\Omega$
- [B] $9,7\text{M}\Omega$
- [C] $97\,000\,000\Omega$
- [D] $970\text{M}\Omega$

1.18 Brown: Green Orange: Gold

- [A] 150Ω
- [B] 1500Ω
- [C] 15Ω
- [D] $15\text{K}\Omega$

1.19 Brown: Blue : Orange: Gold

- [A] $1,6\Omega$
- [B] 160Ω
- [C] 1600Ω
- [D] $16\text{K}\Omega$

1.20 Grey: Blue: Blue: Gold

- [A] 866Ω
- [B] $86\,000\,00\Omega$
- [C] 86Ω
- [D] $86\text{M}\Omega$

[20]

Question 2

Copy the table and fill in the colour codes for the following resistors:-				
Resistor	First Colour	Second Colour	Third Colour	Fourth Colour
$10\Omega \pm 5\%$				
$100\Omega \pm 10\%$				
$1\text{K}\Omega \pm 1\%$				
$3.9\text{M}\Omega \pm 2\%$				
$82000\Omega \pm 2\%$				

[5]

Total (25)

