higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

MAINTENANCE MANAGEMENT: FARMING N5

25 NOVEMBER 2019

This marking guideline consists of 6 pages.

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QUESTION 1

1.1
1.1.1 False
1.1.2 False
1.1.3 True
1.1.4 False
1.1.5 True
1.1.6 True
1.1.7 True
1.1.8 False
1.1.9 False
1.1.10 False

(10 × 1) (10)

1.2
A – Inlet for diesel/fuel
B – Fuel spill port
C – Needle valve spring
D – Spray holes
E – Fuel pocket (5)

1.3 An injector supplies fuel✓, under pressure✓, to the combustion chamber near the end of compression stroke. (2)

1.4
1.4.1 Water trap/Water catcher
1.4.2 Spark plug
1.4.3 Battery

(3 × 1) (3)
[20]

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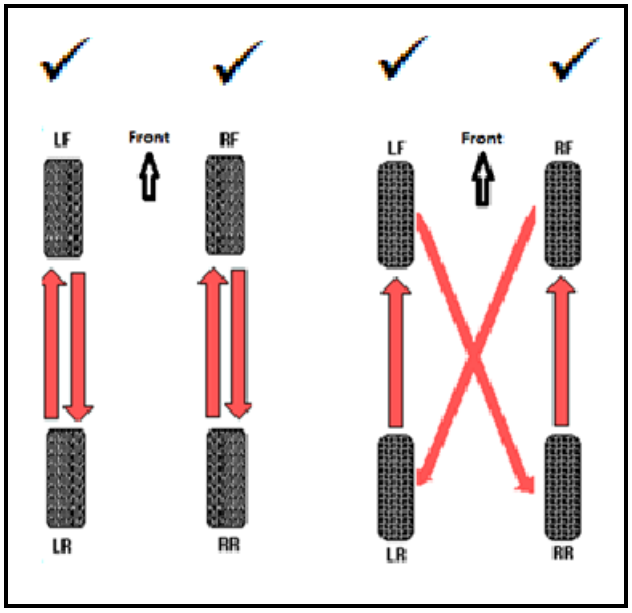
QUESTION 2

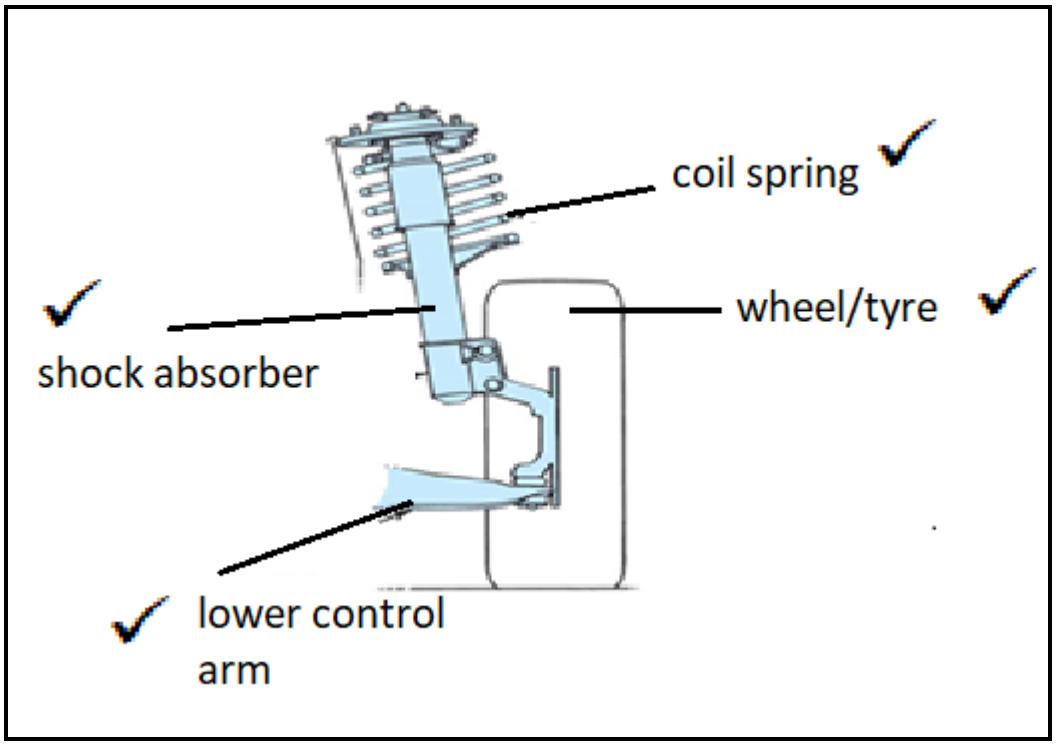
2.1 An anti-lock braking system✓ – prevents wheels from locking✓ during braking (2)

2.2



(4)

2.3



(4)

2.4

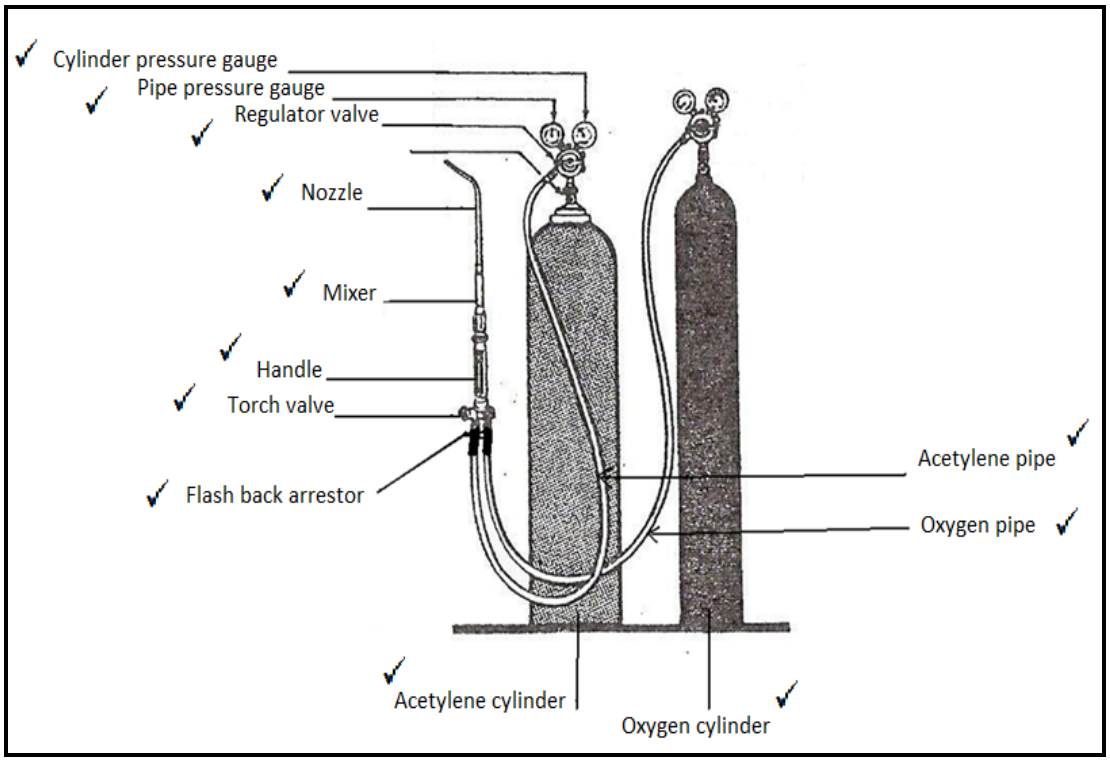
2.4.1	C
2.4.2	E
2.4.3	A
2.4.4	B
2.4.5	D

(5 × 1) (5)

2.5 A – Synchronisers
B – Input shaft
C – Cluster gears
D – Gearbox casing
E – Output shaft (5)
[20]

QUESTION 3

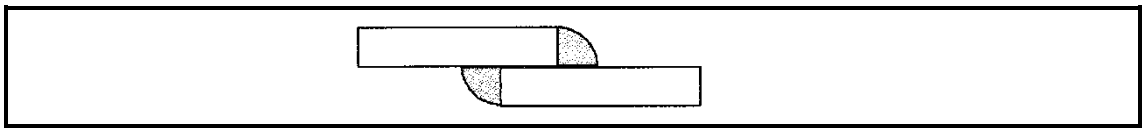
3.1



(**NOTE:** only 1 mark per correct labelled answer, exactly as is =13 × 1) (13)

3.2 A – Undercut
B – Porosity or oxidation
C – Slag inclusions
D – Bad or no root penetration
E – Bad fusion (5)

3.3



(2)
[20]

QUESTION 4

4.1 Electricity is sold as units of kilowatt-hour.✓ One kilowatt-hour's usage is equal to 1 000 watt✓ for one hour✓ (3)

4.2
4.2.1 B
4.2.2 A
4.2.3 D
4.2.4 C
4.2.5 F

(5 × 1) (5)

4.3
4.3.1 False
4.3.2 True
4.3.3 True

(3 × 1) (3)

4.4 $$\text{Power} = \frac{height(l/sec)}{60}$$

$$\text{Power} = \frac{80(2)}{60}\checkmark$$

$$\text{Power} = \frac{160}{60}\checkmark$$

$$\text{Power} = 2.66\ kW\checkmark\checkmark$$ (4)

[15]

QUESTION 5

5.1 A – Purlin
B – Rafter
C – Tie beam
D – Brandering
E – Wall plate
F – Cornice
G – Ceiling board
H – Gutter
I – Gutter bracket
J – Facia
K – Fexit
L – Hoop iron
M – Quarter round
N – Roof type

(14 × 1) (14)

5.2 V1 = (15)(0,7)(0,3) = 3,15 m³
V2 = (8)(0,7)(0,3) = 1,68 m³
Vtot = (V1 + V2)(2) = (3,15 + 1,68)(2) = 9,66 m³

Total foundation volume/Total volume = 9,66 m³ ✓✓✓

Cement needed per m³ – concrete : 5,5 × 9,66 = 53,13 = 54 bags ✓
Sand needed per m³ – concrete : 0,77 × 9,66 = 7,43 m³ = 8 m³✓
Stone needed per m³ – concrete : 0,5 × 9,66 = 4,83 m³ = 5 m³✓

Cement needed = R55,50 × 54 bags = R2 997 ✓
Sand needed = R50,60 × 8 m³ = R404,8✓
Stone needed = R140,10 × 5 m³ = R700,5 ✓

= R4 102,3✓ (10)

5.3 False (1)
[25]

TOTAL: 100

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