



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

MAINTENANCE MANAGEMENT: FARMING N5

25 November 2024

This marking guideline consists of 5 pages.

QUESTION 1

1.1	1.1.1	D	(6 × 1)	(6)
	1.1.2	C		
	1.1.3	B		
	1.1.4	D		
	1.1.5	B		
	1.1.6	A		
1.2	1.2.1	C	(4 × 1)	(4)
	1.2.2	B		
	1.2.3	D		
	1.2.4	A		
1.3	1.3.1	True	(5 × 1)	(5)
	1.3.2	True		
	1.3.3	True		
	1.3.4	False		
	1.3.5	False		
1.4	A – Sensor		(10 × 1)	(10)
	B – Common rail			
	C – High-pressure line			
	D – Injector			
	E – Filter			
	F – Diesel			
	G – Tank			
	H – Filter			
	I – Low-pressure line			
	J – Pump			
				[25]

QUESTION 2

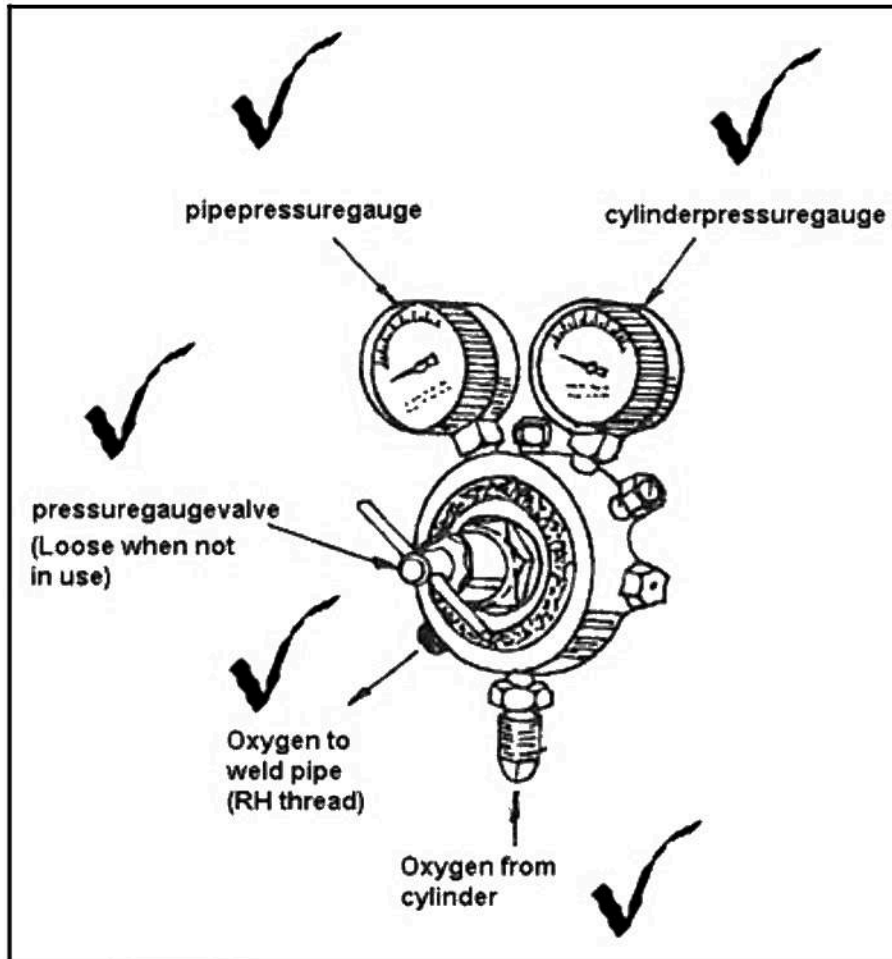
- | | | | | |
|-----|-------|--|-------------|-----|
| 2.1 | 2.1.1 | E | | |
| | 2.1.2 | A | | |
| | 2.1.3 | D | | |
| | 2.1.4 | C | | |
| | 2.1.5 | B | | |
| | 2.1.6 | F | (5 × 1) | (5) |
| 2.2 | 2.2.1 | True | | |
| | 2.2.2 | True | | |
| | 2.2.3 | True | | |
| | 2.2.4 | False | | |
| | 2.2.5 | False | (5 × 1) | (5) |
| 2.3 | • | Wheel cylinder | | |
| | • | Anchor pin | | |
| | • | Return spring | | |
| | • | Backing plate | | |
| | • | Shoe and lining | | |
| | • | Connecting spring | | |
| | • | Adjusting screw | | |
| | • | Brake shoe | | |
| | • | Brake drum | | |
| | • | Brake adjusters | | |
| | • | Retaining washers | (Any 6 × 1) | (6) |
| 2.4 | 2.4.1 | A | | |
| | 2.4.2 | C | | |
| | 2.4.3 | D | | |
| | 2.4.4 | B | (4 × 1) | (4) |
| 2.5 | • | It provides a firm base on which to fit the tyre. | | |
| | • | It must withstand the forces caused by accelerating, braking and hard cornering. | | |
| | • | It must be as light as possible to help keep unsprung weight to a minimum. | | |
| | • | It must allow for quick mounting and demounting of the tyre onto the rim. Wheels must be strong enough to carry the mass of the vehicle. | | |
| | • | The wheel centre must accurately locate the wheel rim centrally on the axle. | | (5) |
- [25]**

QUESTION 3

- 3.1
- Leftward welding
 - Rightward welding

(2)

3.2



(5)

- 3.3
- | | |
|-------|---|
| 3.3.1 | G |
| 3.3.2 | D |
| 3.3.3 | A |
| 3.3.4 | B |
| 3.3.5 | F |
| 3.3.6 | E |
| 3.3.7 | C |
| 3.3.8 | H |

(8 × 1) (8)
[15]

QUESTION 4

- 4.1 Units = $1000 + 1500 + 200 + 300$
 $= 3\,000\text{ W}$ ✓
 $= 3\,000/1000$ ✓
 $= 3\text{ Units}$ ✓✓ (answer only in Units) (NOTE: 1 Unit = 1 KW/hour) (4)
- 4.2 Cost = (Units × R5,50)✓ × (2 × 24)✓
 Cost = (3 × 5,50) × (48)✓
 Cost = 16.50 × 48✓
 Cost = R792✓ (5)
- 4.3 4.3.1 True
 4.3.2 True
 4.3.3 True
 4.3.4 False
 4.3.5 False
 4.3.6 True (6 × 1) (6)
- [15]

QUESTION 5

- 5.1 It reduces the possibility of leakages (2)
- 5.2 Dust, stones, and small animals can fall into the pipe. (2)
- 5.3 $Vt = (l1 \times b1 \times h1)$ ✓
 $Vt = (5\text{ m} \times 0.4\text{ m} \times 0.23\text{ m})$ ✓
 $Vt = 0.529\text{ m}^3$ ✓✓ (4)
- 5.4
 - Cavity walls must be built where there is heavy rain.
 - It serves as isolation to regulate temperature.
 - Face bricks can be used. (3)
- 5.5
 - Hot water cylinders, tanks and pipes must be insulated to prevent heat loss and save costs.
 - Pretreat water to prevent incrustation by lime deposits.
 - The system must be flushed every 6 months to remove sediments and improve heat transfer.
 - The water temperature must be set between 55 °C and 60 °C, and for dairies at 80 °C.
 - Put metal screens at the end of outlets to prevent insects from making nests. (5)
- 5.6 Roof trusses (tie beam, rafter, struts), wall plate. (2)
- 5.7 To build in timber door frames and window frames or the wall plate to the wall (2)
- [20]

TOTAL: