



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

**NATIONAL CERTIFICATE
NOVEMBER EXAMINATION
MOTOR TRADE THEORY N1**

11 NOVEMBER 2013

This marking guideline consists of 6 pages.

QUESTION 1

1.1	1.1.1	C		
	1.1.2	A		
	1.1.3	A		
	1.1.4	D		
	1.1.5	D		
	1.1.6	C		
	1.1.7	C		
	1.1.8	D		
	1.1.9	B		
	1.1.10	C		
			(10 × 1)	(10)
1.2	A – Adjustment plate/Fan belt adjustment lever B – Alternator C – Fan D – Fan belt E – Front pulley			(5)
1.3	• Direct drive fans • Indirect driven fans • Electric fans		(Any 2 × 1)	(2)
1.4	1.4.1	Warning of moving machinery hazards		
	1.4.2	Carbon dioxide hazards		
	1.4.3	Eye protection shall be worn		(3)
				[20]

QUESTION 4

- | | | | | |
|-----|--|-------|-------------|-----|
| 4.1 | 4.1.1 | True | | |
| | 4.1.2 | True | | |
| | 4.1.3 | False | | |
| | 4.1.4 | False | | |
| | 4.1.5 | True | (5 × 1) | (5) |
| 4.2 | <ul style="list-style-type: none"> • Reduce power loss by reducing friction • Reduces wear in moving parts of the engine • Assist in cooling hot components • Assist in cooling pistons and rings against cylinder walls • Absorbs shock and reduces noise between moving parts • Maintain internal cleanliness • Reduces rusting and corrosion of components | | (Any 3 × 1) | (3) |
| 4.3 | <ul style="list-style-type: none"> • External oil leaks • Oil level too high • Faulty crankshaft ventilation system • Worn out oil rings/valve stem seals • Oil pressure too high | | (Any 3 × 1) | (3) |
| 4.4 | <ul style="list-style-type: none"> • It provides an air cushion between road and car wheels • It provides friction between tyre and road for traction • To support the weight of vehicle and distribute over the road • To offer minimum rolling resistance to motion • To give safe operating to maximum speed • To provide comfortable, run quietly of the vehicle • Absorbs road shock | | (Any 3 × 1) | (3) |
| 4.5 | <ul style="list-style-type: none"> • A = 2 ply tyre • B = 4 ply tyre | | (2 × 1) | (2) |
| 4.6 | <ul style="list-style-type: none"> • Negligence • Ignorance • Fooling about • Tiredness • Lack of skills • Untidy working area • Use of wrong tool/equipment | | (Any 2 × 1) | (2) |

- 4.7
- Help the engine to reach its normal running temperature quicker
 - To maintain operating temperature whatever weather condition
 - To meet the requirements of the car interior heating system
- (Any 2 × 1) (2)
[20]

QUESTION 5

- 5.1
- A – eccentric
 - B – cam
 - C – spring
 - D – plunger
 - E – outlet valve
 - F – inlet valve.
- (6)
- 5.2
- Difficult to start
 - Engine fails to crank
- (2)
- 5.3
- Prolonged discharging
 - Local chemical reaction in the cells
 - Insufficient/Infrequent charging
 - The electrolyte level being too low
 - Specific gravity of electrolyte being too low
- (Any 2 × 1) (2)
- 5.4 To measure the density of the electrolyte in the battery. (1)
- 5.5
- 5.5.1 lead light
 - 5.5.2 valve spring lifter
 - 5.5.3 flat screwdriver
 - 5.5.4 gear/bearing puller
 - 5.5.5 Circlip pliers
 - 5.5.6 Pry bar
 - 5.5.7 Ring squeezer
 - 5.5.8 Engineering crane
 - 5.5.9 socket spanner
- (9 × 1) (9)
[20]

TOTAL: 100