



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

**NATIONAL CERTIFICATE
NOVEMBER EXAMINATION
METAL WORKERS' THEORY N1
17 NOVEMBER 2016**

This marking guideline consists of 7 pages.

QUESTION 1

- 1.1
- When emery wheels are used.
 - When a chipping hammer is used.
 - When materials are welded.
 - When hitting brittle material such as welding slag or removing rust from plates. (Any relevant 4 × 1) (4)
- 1.2 Electric shock will occur. (1)
[5]

QUESTION 2

- 2.1
- 2.1.1
- Flat/chipping chisel
 - Cross-cut/grooving chisel
 - Diamond-point/hollowing chisel (3)
- 2.1.1
- Flat chisel – used for removing waste or excess metal or cutting rods, bars or thin plate.
 - Cross-cut chisel – used to cut or enlarge keyways in shafts or pulleys.
 - Diamond-point chisel – used for opening or gouging a cracked machine casing. (3)
- 2.2
- 2.2.1 It is used for light riveting work.
- 2.2.2 It is used when a large number of items are to be marked from a template made from wood.
- 2.2.3 It is used to cut or enlarge keyways in shafts or pulleys.
- 2.2.4 It is used to align the holes in flanges of pipes when pipe columns are assembled. (4 × 1) (4)
[10]