higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

MANUAL MANUFACTURING
NQF LEVEL 2

20 November 2024

This marking guideline consists of 6 pages.

Copyright reserved

QUESTION 1

1.1 1.1.1 A
1.1.2 B
1.1.3 A
1.1.4 D

(4 × 1) (4)

1.2 1.2.1 B
1.2.2 A
1.2.3 D
1.2.4 C

(4 × 1) (4)

1.3
- NOSCAR status is achieved by achieving a 5-star rating for several years.
- It takes a lot of effort and perseverance to achieve this status.
- It requires team work from workers and management. (3)

1.4
- Running or playing in the workshop should be avoided.
- Any spilled liquid should be cleaned up without delay.
- Compressed air should be handled with care. Jets of air should never be directed onto a person's body, nor should they be used to clean swarf or filings from a machine, bench or overalls
- The correct tools should be used for a job.
- The sleeves of your overalls should be rolled up, before working on rotating machinery.
- A proper hand cleaner, as well as a hand barrier cream, should be used. Thinners, petrol or diesel remove the natural oils from the skin.
- Clean overalls should be worn, as dirty overalls pose a fire hazard, as well as a possible health risk. (Any 4 × 1) (4)

[15]

QUESTION 2

2.1


✓ Centre line

✓ Hidden line (2)

2.2 2.2.1 30°−60° set square
2.2.2 compass
2.2.3 protractor
2.2.4 T-square

(4 × 1) (4)

2.3 2.3.1 The drawing will be half the size of the actual part.
2.3.2 The drawing will be double the size of the actual part.

(2 × 2) (4)

[10]

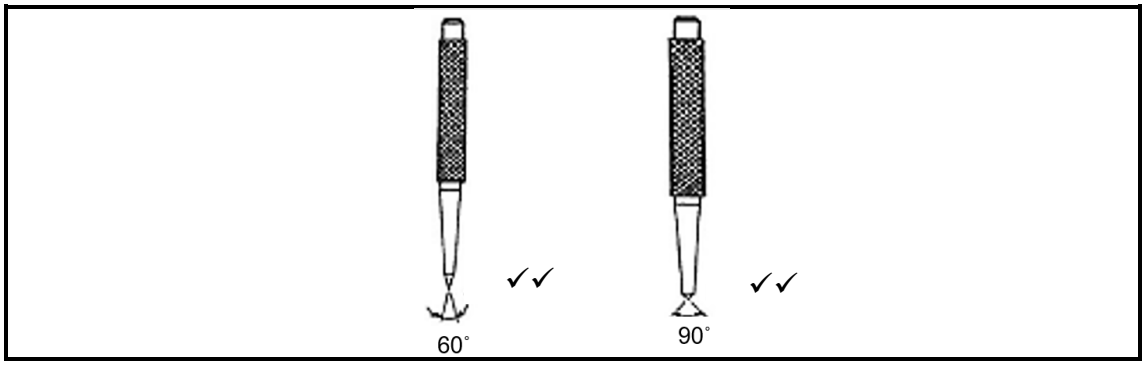
QUESTION 3

3.1
3.1.1 True
3.1.2 False
3.1.3 False
3.1.4 True
3.1.5 True

(5 × 1) (5)

3.2
- External measurement
- Internal (Inside) measurement
- Step measurement
- Depth measurement (4)

3.3



(4)

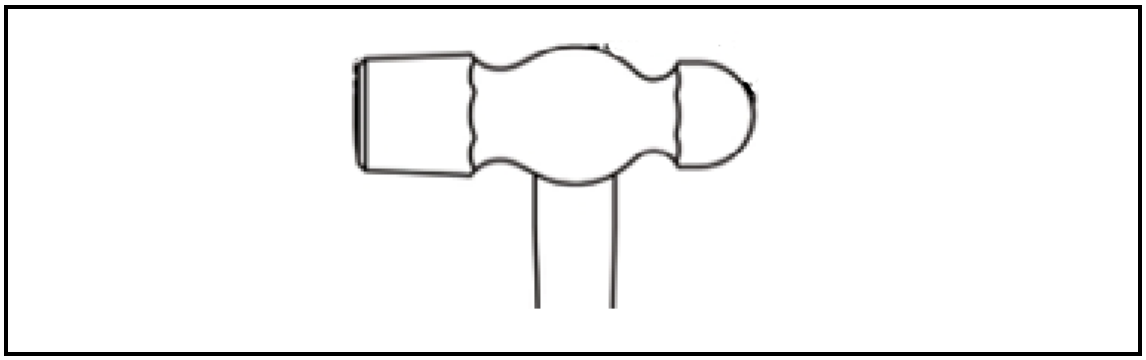
3.4
3.4.1 35.34
3.4.2 48.95

(2 × 2) (4)

3.5
- Locking screws should be loosened after use.
- Do not leave measuring faces on micrometres screwed against each other when the instrument is put away.
- Do not drop the micrometre, because the frame might bend and it will become inaccurate.
- Keep the micrometre clean at all times.
- Prevent damage to the measuring faces of the spindle and bed.
- Do not force the micrometre shaft when measuring.
- Prevent heating, as expansion of the metal affects the accuracy of the reading. Even holding it with your hand has an effect.
- Keep the micrometer stored, in its own box, after use. (Any 2 × 2) (2)

3.6
- Incorrect and careless use
- Blade too soft or too hard
- Wrong blade for the material (3)

3.7



(3)
[25]

QUESTION 4

4.1
4.1.1 C
4.1.2 D
4.1.3 A
4.1.4 B

(4 × 1) (4)

4.2
4.2.1 Oxidizing flame
4.2.2 Carburising flame
4.2.3 Neutral flame

(3 × 2) (6)

4.3
- Leather gloves
- Leather apron
- Gauntlets
- Safety glasses with side shields
- Safety shoes
- Leather spats
- Overall jacket

(Any 4 × 1) (4)

4.4
4.4.1



4.4.2



4.4.3



4.4.4



(4 × 2) (8)

4.5 4.5.1 False
4.5.2 True
4.5.3 False
4.5.4 False
4.5.5 True

(5 × 1) (5)

4.6
- Begin heating the tip till the solder begins to melt.
- Rub some solder onto the tip and spread it over the tip. When it is done, it will have a shiny silver appearance.
- If the tip is too hot, the copper will tarnish. When this happens, allow it to cool down.

(3)
[30]

QUESTION 5

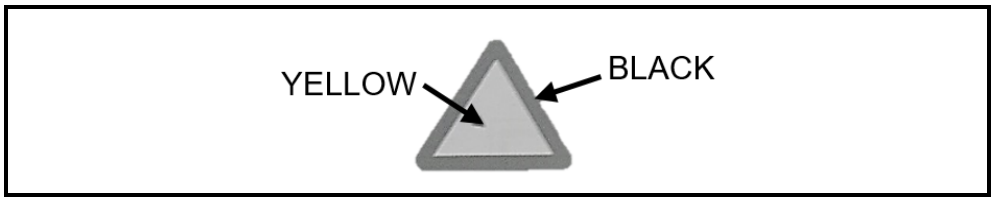
5.1
- Workers tripping over objects on floors.
- Articles dropping from above.
- Workers slipping on greasy, wet or dirty floors.
- Staff bumping against materials that are protruding or sticking out, because they have been badly stacked or badly placed.
- Hands or other parts of the body being cut by nails, wire, steel straps or splinters that protude from untidy piles of material or untidy working surfaces.

(Any 4 × 1) (4)

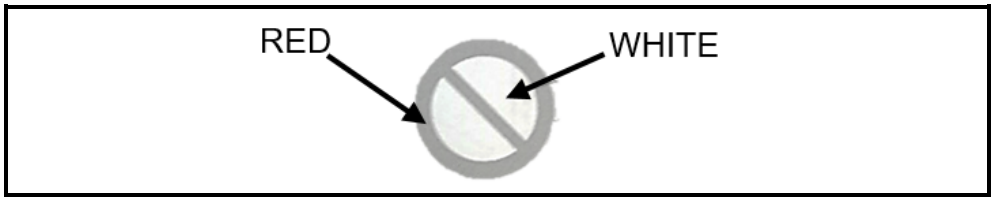
5.2 5.2.1 Blue
5.2.2 Yellow and black
5.2.3 Yellow

(3 × 1) (3)

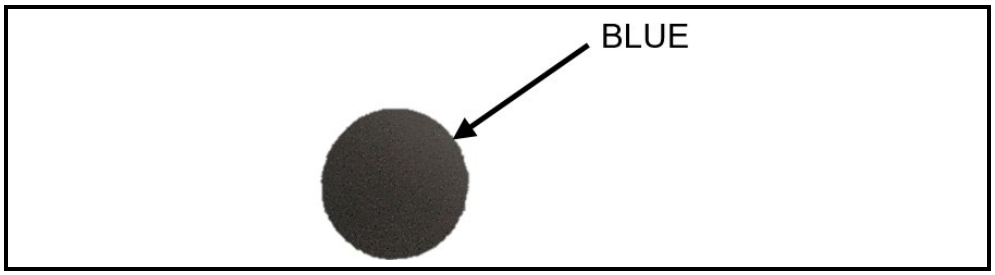
5.3 5.3.1



5.3.2



5.3.3



(3 × 2) (6)

5.4
- It saves time if another part has to be made later on down the line
- To know how much material you will need
- To know what tools have been used, if the project has to be made again
- The procedure to follow to make this project. (4)

5.5
- Very soft
- Corrosion resistant
- Good conductor of heat
- Good conductor for electricity
- Ductile
- Malleable (Any 3 × 1) (3)

[20]

TOTAL: 100

Copyright reserved