higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

SUPPLEMENTARY EXAMINATION

MANUAL MANUFACTURING
NQF LEVEL 2

28 FEBRUARY 2014

This marking guideline consists of 5 pages.

QUESTION 1

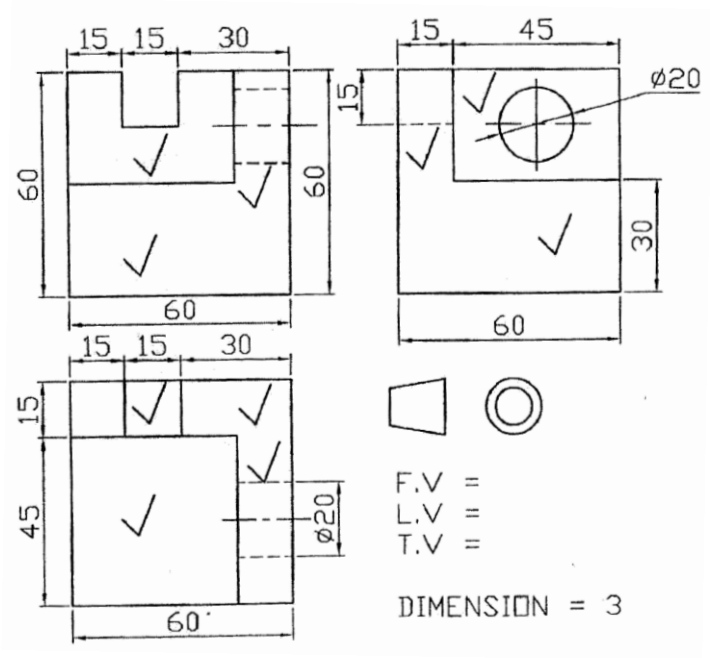
1.1

Class of fire	Combustible material	Method of extinguishing
Class A	Grass, wood, paper	Water or quenching
Class B	Petrol, diesel, oil	Foam extinguisher
Class C	Electrical	Carbon dioxide or dry powder
Class D	Magnesium, titanium	Cover with dry powder

(4 x any 3 per column) (12)

1.2
- Oxygen
- Heat
- Fuel (3)

1.3



(10)
[25]

QUESTION 2

2.1
- Incorrect and careless use
- The blade is too soft
- The blade is too hard
- Wrong blade type for the type of material
- Too coarse a pitch when used on thin sections (5 × 1) (5)

2.2 2.2.1 A bastard file

2.2.2 A second cut or smooth file

2.2.3 An engineering square

2.2.4 A scriber

2.2.5 A pair of dividers

2.2.6 Tap-wrench and tap

2.2.7 A centre punch

2.2.8 A drill bit

(8 × 1) (8)

2.3 2.3.1 D

2.3.2 E

2.3.3 A

2.3.4 B

2.3.5 C

(5 × 1) (5)

2.4
- Do not hammer on the end of a screwdriver.
- Always select the right size screwdriver.
- Do not use pliers or wrenches on a screwdriver to increase the force.
- Never use a screwdriver to check an electrical circuit as the arcing of the current across the points will damage the shank and blade.
- Never attempt to use a screwdriver whilst holding the workpiece in your hand. (5 × 1) (5)

2.5
- Abrasive grain
- Fillers
- Bond
- Grain size (Any 2 × 1) (2)

[25]

QUESTION 3

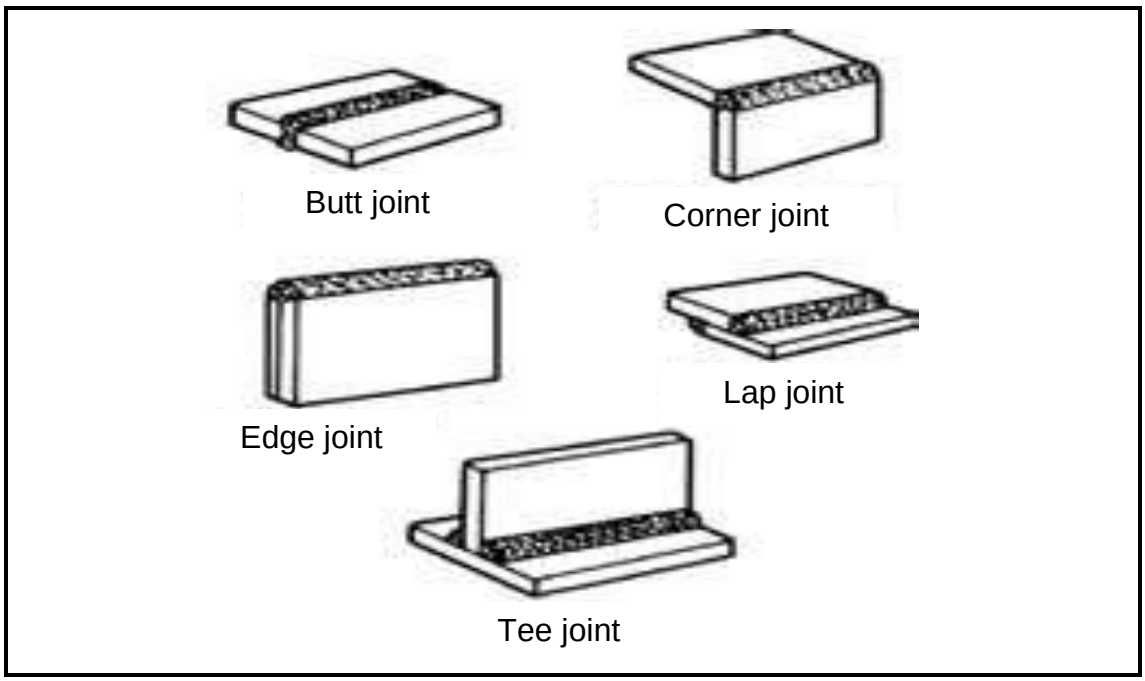
3.1
- Gas welding is a metal-fusion process using heat due to combination of acetylene and oxygen with or without the use of filler rods.
- TIG welding is a metal fusion-process that has a tungsten heating electrode and uses inert gas to prevent contamination with or without filler rods.
- MIG welding is a metal-fusion process that makes use of a semi-automatic continual feed electrode that causes the heating arc as well as an inert gas to prevent contamination. (3 × 2) (6)

3.2 Arc-welding system (1)

3.3 A – Power, main supply
B – Return, earth, negative
C – Clamp
D – Welding cable, positive
E – Welding rod, electrode (5 × 1) (5)

3.4
- The size of the joint to be soldered
- The heat needed to solder the joint without damaging other components
- The size of the soldered area
- The cost of soldering (4 × 1) (4)

3.5



(5 × 2) (10)

3.6

COLOUR	DESCRIPTION	WHAT IT MEANS
YELLOW	LINES	TO MARK WALK WAYS, WORKING AND STORAGE SPACE.
GREY	WORKING SPACE PAINTED FLOOR	

(4)
[30]

QUESTION 4

4.1 WW Warning signs
FB Fire-equipment signs
GA Informative signs
PV Prohibitive signs
MV Safety clothes signs (5 × 1) (5)

4.2

Work plan	
NAME: **J FOREMAN**	
Name of task: **TEMPLATE**	
Start date: **02/09/2012**	End date**: 03/09/2012**

Procedure plan	
PROCESS	TOOLS/EQUIPMENT
Identify and collect material Mark out centre lines and edges to dimensions Cut to rough profile File to dimension Centre punch and drill hole Deburr and polish to required finish (Any 5)	Steel ruler Scriber Hacksaw Hammer Centre punch Range of files Drill bits and drilling machine (Any 5)

(Any 10 × 1) (10)

4.3
- Gears
- Bushes
- Spacers
- Coupling discs
- Gauge cases
- Vice jaws

(Any 5 × 1) (5)
[20]

TOTAL: 100