higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

INTRODUCTORY FACTORY ORGANISATION N4

5 JUNE 2018

This marking guideline consists of 8 pages.

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SECTION A

QUESTION 1

1.1 D
1.2 C
1.3 A
1.4 B
1.5 A
1.6 B
1.7 D
1.8 D
1.9 C
1.10 B

(10 × 1) **[10]**

QUESTION 2

2.1 True
2.2 True
2.3 True
2.4 True
2.5 True
2.6 True
2.7 True
2.8 False
2.9 True
2.10 False
2.11 False
2.12 True
2.13 False
2.14 True
2.15 False

(15 × 1) **[15]**

QUESTION 3

3.1 Strike through
3.2 Binders
3.3 Process inspection
3.4 Pilling
3.5 Seam
3.6 Communication
3.7 Autocratic
3.8 Throughput
3.9 Assembly
3.10 Noise

(10 × 1) **[10]**

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QUESTION 4

4.1 E
4.2 J
4.3 K
4.4 C
4.5 B

(5 × 1) **[5]**

QUESTION 5

5.1 Self-actualisation needs
5.2 Esteem needs
5.3 Social needs
5.4 Security needs
5.5 Physiological needs

(5 × 1) **[5]**

QUESTION 6

6.1 Planning
6.2 Organising
6.3 Staffing
6.4 Leading and directing
6.5 Controlling (order does not matter)

(5 × 1) **[5]**

TOTAL SECTION A: 50

QUESTION 7

7.1 7.1.1 Cutting tables

- Must be strong and sturdy✓
- Smooth durable finish✓
- Table must be strong to carry the weight of the spreading machine✓
- The height of the table must be suitable for the person who lays up the fabric or does the cutting✓
- The needs of the factory, or the length of the marker determines the length of the tables✓ (5)

7.1.2 Ticketing machines

- Prints a ticket that identifies each bundle✓
- Position of bundle and operator responsible for specific operation can be controlled✓ (2)

7.2 7.2.1 Zippers

- High level colour matching is required.✓
- Weight of zipper must be compatible with that of the garment.✓
- Steel zippers should not show any rust.✓
- Detail must be colour fast, no colour fading or staining of adjacent fabric.✓ (4)

7.2.2 Press studs, poppers, hooks and eyes:

- Can be made of plastic, steel or brass with a design on the cap.✓
- Use fasteners without defects.✓
- Parts of poppers and studs must fit into each other securely.✓ (3)

7.3

- Keep aisles, alleys and workstations clean and tidy. Return equipment to its original place.✓
- Do not walk in marked off alleys or stand on conveyer belts.✓
- Keep your hands away from all moving parts.✓
- Ensure that all equipment at workstations is serviced regularly.✓ (4)

7.4 7.4.1 Laboratory equipment is used.✓ A sample of the fabric is stretched over a frame✓ and placed in a testing cabinet.✓ Metal balls with burrs✓ on the inside of the cabinet cause friction when the power is switched on.✓ The burrs catching the fibre cause pilling.✓ (6)

7.4.2 A sample of fabric is stretched over an embroidery hoop.✓ One can determine whether the dye is colourfast✓ by rubbing it vigorously with a clean, dry white cotton swab✓If the swab shows signs of a faint stain, it proves that the dye is not colourfast.✓ (4)

7.4.3 Tested in laboratories in a dark cupboard✓ using intense ultraviolet light.✓ The time is calculated at the intensity of a certain amount of hours exposed to sunlight.✓ (3)

7.4.4 The influence of damp heat is tested with a steam iron✓ or a damp pressing cloth.✓ Compare the test sample with a control sample for any changes in colour.✓ (3)

7.5 Production-orientated leaders✓ focus on outputs.✓ Improved results can be achieved by improving methods.✓ Their biggest concern is keeping workers busy all the times.✓ They urge workers to produce more and more.✓
People or employee-orientated leaders✓ focus on workers – output can only be good✓ if people are motivated.✓ They try to promote group work or working together rather than individually.✓ Such leaders are sympathetic to the workers' problems.✓ (10)

7.6
- Hazardous workstations✓
- Cluttered and untidy (tripping/fire hazard)✓
- Dangerous processes being applied (faulty machinery)✓
- Work at a high speed (must be fitted with shields for the needle/blade/fly-wheel)✓
- Slippery surfaces of tables with notches out✓
- Cables can snag✓ (6)

[50]

QUESTION 8

8.1 Factors hampering communication
- Misunderstanding
- Status and learning
- Distance
- Noise
- Language
- Attitude
- Cultural barriers
- Emotional state (8)

8.2 8.2.1 Burns
- Minor burns can be treated with an ointment and covered with gauze.
- Serious burns must be treated by a doctor/at casualty at a hospital. (2)

8.2.2 Foreign objects
In the eye – take the person to a doctor/casualty if it seems serious.
It may be steel or wooden fragments which may damage the eye.✓
In the skin – it could be a needle or wooden splinter in the finger.
Remove it with sterilised tweezers, disinfect and cover.✓ If penetration is deep penetrated, cover and have it medically removed.✓ (3)

8.3
- Planning needs to be done with regard to policies, goals for expansion, budgets and assessments of personnel, space and equipment.
- Organising of tasks, grouping tasks together within subsections in the organisation.
- Staffing to ensure the right person for the job.
- Leading and directing to ensure organisation's goals are reached.
- The measurement and correction of performance, monitoring activities, in order to ensure that the goals of the company are met as planned. (5)

8.4
- Each machine has ONE function only.
- The machine is heavier and bigger than a domestic sewing machine.
- It is much faster than a domestic machine.
- Due to the high speed and vibration it should be mounted on a heavy, sturdy table (stand).
- The table is very heavy and the top is thick and smooth.
- A heavy one horsepower motor (single or three phase) is fitted to stand. (6)

8.5 Motivation refers to a group of factors✓ which determine and direct an organisation's behaviour.✓ It impels or drives the individual to action✓ in an attempt to achieve a particular goal.✓ (4)

8.6
- Ensure adequate feedback facilities exist.
- Reducing status differentials within the organisation.
- Ensuring that all are aware of the importance of good communication.
- Employing more than one communication network.
- Minimising chains of communication.
- Using a variety of media. (6)

8.7
- Holiday bonus
- Profit bonus or dividend sharing
- Annual increase in salary
- Travel allowance
- Transport to/from work (Any FOUR) (4)

8.8 Preparation✓ – all functions where parts of garment are not yet assembled (after cutting), fused, marked, ticketed and bundled.✓ Gathering, pleating, darts, overlocking of open single seams, joining facing seams, completing small parts such as pocket flaps, tie belts, cuffs, collars and pockets.✓
Assembly✓ – actual garment parts are joined.✓ Close center back seam, inset zip, join side seams, close shoulder seams, insert sleeves, attach collars and waistbands, etc.✓
Finishing✓ – actions of completing once the garment is assembled.✓ Buttonholes, buttons, hems, clean trimming of loose threads, final pressing, inspection and packing.✓ (9)

8.9 Blind hemming machines are used to fasten hems or facings.✓ The stitching impression is not visible on the outside of the garment.✓ This machine uses a curved needle.✓ Single or double thread versions are available.✓
(ANY THREE) (3)
[50]

QUESTION 9

9.1 Grading by hand,✓ using the Varigrader✓ or computerised grading✓ are used for pattern grading. (3)

9.2 Time study is a work measurement technique used to determine the rate at which a specific operation is performed.✓ The objective of time study is to develop and check production standards,✓ the time required to complete each element✓ and the rate at which the operator is working.✓ (4)

9.3
- The height of the work surface
- Placement of work and reach required
- Forced posture
- The design and relationship of all the parts (4)

9.4
- Width of the marker must be the same width as fabric to be cut.
- Place larger pattern pieces first and fit smaller pieces in between.
- Align long straight edges to separate two garment pieces with one cut. (3)

9.5 Advantages
- Very accurate✓
- Very fast✓
- Most effective✓ (Any TWO)

Disadvantages
- A large initial investment✓
- Computer experts are needed as operators✓ (4)

9.6 Advantages
- Labour saving. Only one attendant needed.
- Accurate laying-up of the machine if correctly mounted and programmed

Disadvantages
- Expensive
- Requires special tables for laying-up
- Mechanical machines to be pushed manually are heavy. Two well-trained workers are often more effective and faster.
- Fabric is stretched more than with manual laying-up. Thus a longer relaxed period needed for knits and loosely woven fabrics.
- Less accurate than manual laying-up of striped and checked fabrics. (7)

9.7
- The flow must progress without breaks. Machinist must not sit idle and wait for work.
- Bottlenecks should be prevented.
- Crossing of bundles must be prevented. The flow must be in a straight line.
- Operations must follow each other without time lost (unnecessary handling).
- Bundling must be done correctly for easy flow.
- Transportation system must be efficient. (6)

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9.8 Lighting,✓ sound/noise,✓ vibrations,✓ temperature/climate,✓ humidity,✓ air,✓ colour,✓ workspace✓ and hygiene✓ may affect how workers perform. (9)

9.9 Sound✓ – useful for warnings and alarm purposes.✓
Sight✓ – blinking lights display the warning signal visually to inform operators of danger of malfunction.✓
Touch✓ – used to communicate the information by touching the controls on the machine by the operator.✓ (6)

9.10
- Must be adequate and comfortable.✓
- Machinery and equipment must be well kept and serviced.✓
- Modern and up-to-date machines✓ and attachments should be used.✓ (4)

[50]

TOTAL SECTION B: 150
GRAND TOTAL: 200

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