



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

CIVIL TECHNOLOGY (CIVIL SERVICES)

GUIDELINES FOR PRACTICAL ASSESSMENT TASKS

GRADE 12

2020

These guidelines consist of 14 pages.

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SECTION 1

1. INTRODUCTION

The 17 Curriculum and Assessment Policy Statement subjects which contain a practical component all include a practical assessment task (PAT). These subjects are:

- AGRICULTURE: Agricultural Management Practices, Agricultural Technology
- ARTS: Dance Studies, Design, Dramatic Arts, Music, Visual Arts
- SCIENCES: Computer Applications Technology, Information Technology
Technical Sciences
- SERVICES: Consumer Studies, Hospitality Studies, Tourism
- TECHNOLOGY: Civil Technology, Electrical Technology, Mechanical Technology and
Engineering Graphics and Design.

A practical assessment task (PAT) mark is a compulsory component of the final promotion mark for all candidates offering subjects that have a practical component and counts 25% (100 marks) of the end-of-year examination mark. The PAT is implemented across the first three terms of the school year. This is broken down into different phases or a series of smaller activities that make up the PAT. The PAT allows for learners to be assessed on a regular basis during the school year and it also allows for the assessment of skills that cannot be assessed in a written format, e.g. test or examination. It is therefore important that schools ensure that all learners complete the practical assessment tasks within the stipulated period to ensure that learners are resulted at the end of the school year. The planning and execution of the PAT differs from subject to subject.

SECTION 2

2. GUIDELINES FOR THE TEACHER

(These guidelines must be explained clearly to the learners.)

2.1 The structure of the PAT for Civil Technology

The PAT accounts for the skills the learner has mastered. This is assessed at intervals and requires the learner to engage in multiple practical sessions. During these weekly sessions, skills such as simulation, experimentation, hand skills, tool skills, machine skills and workshop practice are honed and perfected to the point where the learner may engage in the tasks set out for that particular term. The PAT accounts for 25% of the learner's promotion mark.

2.2 Management of the PAT

The PAT should commence in term 1, as this is a lengthy and drawn-out process and **CANNOT** be left to the last minute. The model should be done over THREE terms starting in term 1 and phase 1 should be done concurrently with the model in term 1. Phase 1 must be completed, marked and internally moderated by the end of term 1. Phase 2 must be completed, marked and internally moderated by **31 August 2020**.

- (a) All the phases of the PAT should be completed and presented for assessment by the end of **August 2020** to allow sufficient time for the external moderation.
- (b) During this phase, the teacher will do any final assessments that are outstanding. All the phases of the PAT are kept safely until the moderation process is completed (both provincial and national moderation).
- (c) **The internal moderator/HOD must conduct moderation of the PAT throughout the year.**
- (d) It is imperative that the criteria are adhered to from the beginning, as this will form the basis for assessment.
- (e) Teachers cannot penalise learners on points that are not included in the initial criteria.
- (f) When learners are selected during moderation (face moderation), they may be required to showcase their skills and knowledge.

All teachers must design a pacesetter in line with the time frames specified in the PAT to indicate the completion dates for the different phases of the PAT. The teacher must manage this process to avoid crisis management and unnecessary stress closer to the completion date of the PAT.

The submission dates for the different phases of the PAT, as indicated in the pacesetter, should be given to the learners in writing.

2.3 Administration of the PAT

The PAT should be based on real-life situations and should be administered and completed under controlled conditions.

After studying the guidelines teachers must fully explain the requirements of the different phases of the PAT and the criteria, as indicated in the assessment tools and mark schedules, to the learners. This will ensure that learners and teachers have a common understanding of the assessment tools and what is expected of the learners.

Teachers are requested to make copies of **SECTIONS 3 TO 5** of this document and hand them with the assessment criteria to the learners not later than the **first week in February**.

The products/models should not leave the classroom/workshop and must be kept in a safe place at all times when learners are not working on them.

2.4 Assessment and moderation of the PAT

The PAT for Grade 12 is externally set and externally moderated, but internally assessed by the teacher and moderated by the internal moderator/HOD.

2.5 Assessment

Frequent developmental feedback is needed to guide and support the learner to ensure that the learner is on the right track.

Both formal and informal assessment should be conducted on the different phases of the PAT. Informal assessment may be conducted by the learner himself or herself, by a peer group, or by the teacher. Formal assessment should always be conducted by the teacher and the results will be recorded.

The teacher must take into account the requirements of the assessment of all the phases of the PAT and therefore plan the assessment programme of the PAT accordingly.

2.6 Moderation

During moderation of the PAT all phases of the PAT must be presented to the internal moderator as well as the external moderator.

Where required the moderator should be able to call on the learner to explain the function and working principles and also request the learner to exhibit the skills acquired during practical sessions for moderation purposes.

SECTION 3**3. GUIDELINES FOR THE LEARNERS****CIVIL SERVICES TASKS**

The practical assessment task (PAT) consists of TWO phases to be completed over THREE terms.

The PAT should be done over THREE terms starting in term 1 with phase 1 and phase 2.

TIME SCHEDULE FOR THE COMPLETION OF THE PAT:

It is recommended that learners and teachers use this time schedule to finish the PAT in the allocated time.

TERM	WORK TO BE DONE	
Term 1	Phase 1	Installation of a high-pressure geyser
Term 1	Phase 2	Research, sketches and cutting list
Term 2	Phase 2	Cutting of sheet metal and pipes for stand
Term 3	Phase 2	Assembly of lamp.

Learner's name: _____

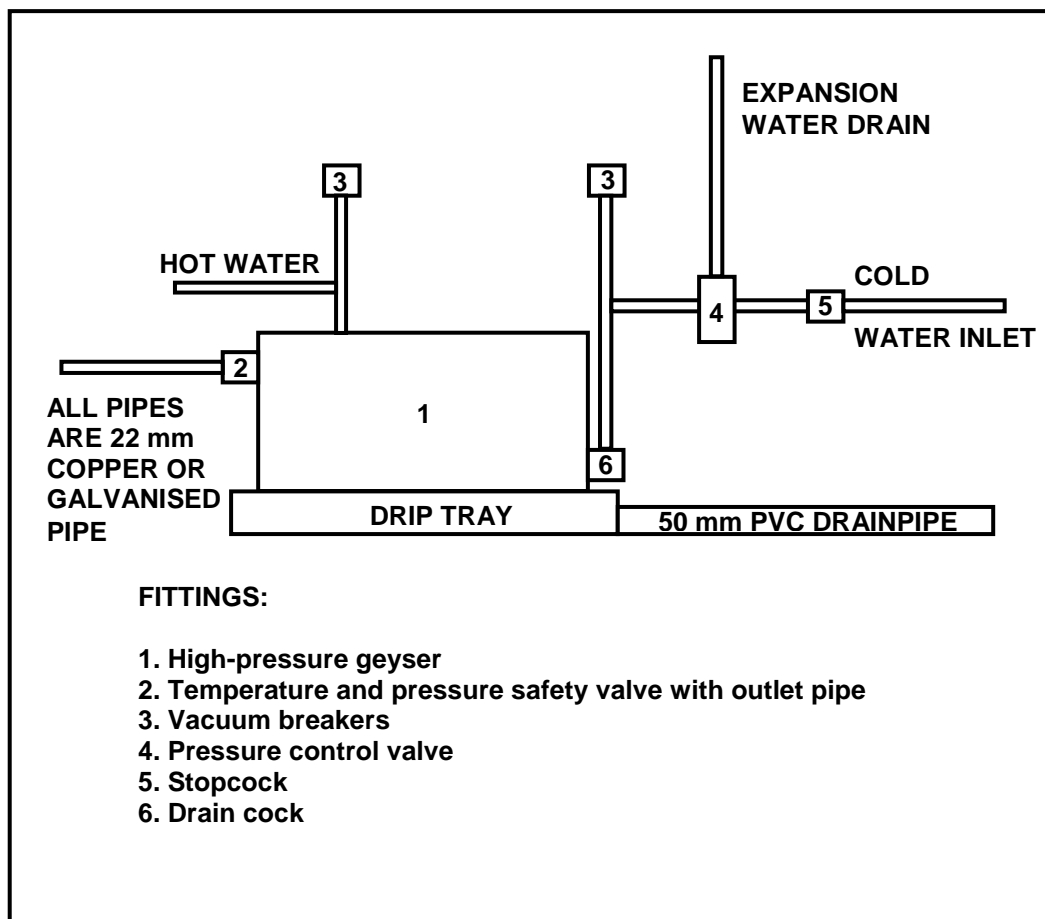
Time allowed: 1st to 3rd term

3.1 Instructions to the learner

- This practical assessment task counts 25% of your final promotion mark.
- All work you produce must be your own effort.
- Use your discretion where dimensions and/or information have been excluded.
- Where available you may use electronic equipment, e.g. cellphones, cameras and digital cameras to document your progress.
- **The product/model should not leave the classroom/workshop and must be kept in a safe place at all times when you are not working on it.**

3.2 Phase 1 Term 1: Installation of a high-pressure geyser**Term: 1****Duration of phase 1: 4 hours per learner****Mark allocation: 20 marks****Task:**

The **DIAGRAM** below shows the horizontal installation of a high-pressure geyser. Study the **DIAGRAM** and complete the installation of the geyser.

**Instructions:**

- Use a pre-mounted high-pressure geyser to install the pipes and necessary fittings as indicated in the diagram above.

NOTE:

- All pipes should be cut to length by the teacher before the learner starts the installation.
- The geyser and fittings do not have to be in working condition. It can be an old recycled geyser and the number of geysers needed will be influenced by the total number of learners that have to complete the task.
- The drip tray and the drainpipe will be pre-installed and ready for the geyser to be placed on it.

3.3 Marking guidelines for phase 1

INSTALLATION OF A HIGH-PRESSURE GEYSER					
LEARNER'S NAME AND SURNAME: _____					
NO.	ASSESSMENT CRITERIA	GOOD/ EXCELLENT	AVERAGE	POOR/NOT ATTEMPTED	LEARNER MARK
JOINING OF FITTINGS:		8–10	4–7	0–3	LM
1.1	Correct connection of drain cock				
1.2	Correct connection of vacuum breakers				
1.3	Correct connection of stopcock				
1.4	Correct connection of temperature and pressure safety valve				
1.5	Connection of pressure control valve				
1.6	Anti-syphon loop correctly installed				
JOINING OF PIPES:		14–20	7–13	0–6	LM
1.7	Pipes correctly placed and assembled				
TOTAL MARK OUT OF 80:					
CONVERTED MARK OUT OF 20:					

It is recommended that video clips and photos of the learner performing the task be kept electronically at the school and on a disc and or memory stick (backup).

3.4 Phase 2: Desk lamp

Term: 1, 2 and 3

Duration: 20 hours

Task:

You are required to design and make a desk lamp with a lamp shade.

Instructions:

- Research different types of designs of desk lamps with lamp shades. The stand with base should be made from copper pipe or galvanised pipe or a combination of the two materials. The lamp shade should consist of a suitable **conical polygon** made from sheet metal.
- Draw (**freehand or with instruments**) at least THREE designs of a desk lamp with a lamp shade.
- Provide the final design with dimensions of the desk lamp with a lamp shade you are going to make.
- Compile a schedule to show the stages and time frames for the making of the desk lamp with a lamp shade.

Use the following specifications:

- The stand with base should be stable enough to carry the weight of the lamp shade.
- Use suitable fittings to join the pipes.
- The shade of the desk lamp should consist of the development of any conical polygon. The development of the shade should have a lap joint and be soldered.
- The development of the lamp shade should be drawn according to scale 1 : 1 to be used to make a template.
- Provision must be made for the wiring of the light fitting.

NOTE: Evidence of research, drawings, templates, stages in making as well as the model should be available for moderation.

3.5 Marking guidelines for phase 2

ASSESSMENT OF THE DESK LAMP				
LEARNER'S NAME AND SURNAME: _____				
ASSESSMENT CRITERIA: Adapt the criteria so that the base and stand is made first followed by the lamp shade	GOOD/ EXCELLENT	AVERAGE	NOT ATTEMPTED /POOR	LEARNER MARK
PLANNING	4–5	2–3	0–1	LM
Evidence of research, drawings and dimensions on the preferred design of the base/stand				
Evidence of research, drawings and dimensions on the preferred design of the lamp shade				
Schedule to show the stages and time frames				
TOTAL: 15				
FABRICATION OF STAND	8–10	4–7	0–3	LM
Setting out/measuring of pipes/fittings for stand.				
Connecting pipes/fittings for stand by using appropriate methods.				
No obvious tool marks on pipes and fittings/No excess solder on pipes and fittings				
TOTAL: 30				
FABRICATION OF BASE	4–5	2–3	0–1	LM
Setting out/Measuring of pipes/fittings for base				
Connecting pipes/fittings for base by using appropriate methods				
No obvious tool marks on pipes and fittings/No excess solder on pipes and fittings				
TOTAL: 15				
DRAWING OF DEVELOPMENT	12–15	8–11	0–7	LM
Drawing of development of polygon for lamp shade				
TOTAL: 15				
MAKING OF TEMPLATE AND MARKING OUT OF SHEET METAL	4–5	2–3	0–1	LM
Making of template for development of lamp shade				
Marking of shape on sheet metal using template				
TOTAL: 10				

ASSESSMENT CRITERIA	GOOD/ EXCELLENT	AVERAGE	NOT ATTEMPTED/ POOR	LEARNER MARK
CUTTING OUT OF SHAPES ON SHEET METAL	8–10	4–7	0–3	LM
Cutting out of shapes for the lamp shade (correct use of tin snip and accuracy)				
TOTAL: 10				
MANUFACTURING/BENDING/SHAPING	8–10	4–7	0–3	LM
Correct use of plate bending machine/alternative method to bend lap joint and seams				
TOTAL: 10				
JOINING	8–10	4–7	0–3	LM
Lap joints/Seam lap joints of lamp shade				
Correct soldering technique				
Accuracy of alignment and placement of different parts of desk lamp when joining				
TOTAL: 30				
FINISHING	4–5	2–3	0–1	LM
Cleaning of joints and finishing/painting of final model				
TOTAL: 5				
FINAL PRODUCT	4–5	2–3	0–1	LM
Neatness and appearance of final product				
Functionality of finished product				
TOTAL: 10				
INNOVATION AND CREATIVITY	4–5	2–3	0–1	LM
The learner added features to improve the appearance and functionality of the desk lamp				
TOTAL: 5				
GENERAL ASPECTS	4–5	2–3	0–1	LM
Adherence to deadlines				
TOTAL: 5				
GRAND TOTAL OUT OF 160:				
CONVERTED MARK OUT OF 80:				

3.6 Composite mark sheet Civil Services

No.	NAMES OF LEARNERS	PHASE 1			PHASE 2 (MODEL)												TOTAL					
		PHASE 1	MODERATED MARK	TOTAL: 20	PLANNING	FABRICATION OF STAND	FABRICATION OF BASE	DRAWING OF DEVELOPMENT	MAKING OF TEMPLATE AND MARKING OUT OF SHEET METAL	CUTTING OUT OF SHAPES ON SHEET METAL	MANUFACTURING/ BENDING/SHAPING	JOINING	FINISHING	FINAL PRODUCT	INNOVATION AND CREATIVITY	GENERAL ASPECTS	TOTAL PHASE 2	MODERATED MARK	CONVERTED TOTAL	MODERATED MARK	GRAND TOTAL (P1 + P2)	MODERATED MARK
		20	20	20	15	30	15	15	10	10	10	30	5	10	5	5	160	160	80	80	100	100
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
	TOTAL																					

Signature of (Teacher)_____
Date_____
Signature of (Moderator)_____
Date

SCHOOL STAMP

SECTION 4

4.1 Absence/Non-submission of task (What are the consequences?)

The absence of a practical assessment task will be dealt with in accordance with the regulations as stipulated in the *National Policy on Protocol for Assessment Grades R–12*, page 6, chapter 3, paragraphs 7 and 8.

The *National Protocol for Assessment Grades R–12*, chapter 3, paragraph 8, subsection (4) clearly states that the absence of a practical assessment task mark will result in the candidate registered for that particular subject, receiving an incomplete result.

4.2 Requirements for presentation

The following should be presented by the candidate for assessment and moderation:

- Phase 1: Mark sheet with evidence
- Phase 2: Evidence of planning of the model
- Phase 2: A completed model
- The candidate's name and class must be clearly indicated on all components of the PAT.
- Completed declaration of authenticity with school stamp

The following document must be presented by the teacher for moderation:

- A composite mark sheet (one composite mark sheet comprising all candidates' names and marks for all phases)

4.3 Recommended time frames for the completion of the PAT

Term 1:

- Phase 1
- Phase 2 (part 1) (research, sketches, cutting list)

Term 2:

- Phase 2 (part 2) (cutting of sheet metal and pipes for stand)

Term 3:

- Phase 2 (part 3) (assembly of lamp)

The product/model to be manufactured in the workshop under teacher supervision.

- Declaration of authenticity

NOTE: The learners should start with the model at the beginning of term 1 and complete it by the end of August. The teacher should properly plan and manage the available resources so that all learners will be busy with some part of the tasks throughout the year.

4.4 Declaration of authenticity

NAME OF THE SCHOOL:

NAME OF LEARNER:.....

NAME OF TEACHER:

SCHOOL STAMP

I hereby declare that the practical assessment task submitted for assessment is my own, original work and it has not been submitted for moderation previously.

SIGNATURE OF LEARNER_____
DATE (SUBMITTED)

As to my knowledge, the above declaration by the candidate is true and I accept that the work offered is his or her own.

SIGNATURE OF TEACHER_____
DATE

SECTION 5**5. CONCLUSION**

On completion of the practical assessment task learners should be able to demonstrate their understanding of the industry, enhance their knowledge, skills, values and reasoning abilities as well as establish connections to life outside the classroom and address real world challenges. The PAT furthermore develops learner's life skills and provides opportunities for learners to engage in their own learning.