



# **basic education**

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Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

## **CIVIL TECHNOLOGY (CIVIL SERVICES)**

### **GUIDELINES FOR PRACTICAL ASSESSMENT TASKS**

**GRADE 12**

**2022**

**These guidelines consist of 15 pages.**

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**SECTION 1****1. INTRODUCTION**

The following 18 Curriculum and Assessment Policy Statement subjects which contain a practical component must include a practical assessment task (PAT).

- **AGRICULTURE:** Agricultural Management Practices, Agricultural Technology
- **ARTS:** Dance Studies, Design, Dramatic Arts, Music, Visual Arts
- **SCIENCES:** Computer Applications Technology, Information Technology, Technical Sciences, Technical Mathematics
- **SERVICES:** Consumer Studies, Hospitality Studies, Tourism
- **TECHNOLOGY:** Civil Technology, Electrical Technology, Mechanical Technology, 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. The PAT 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 **2 September 2022**.

- (a) All the phases of the PAT should be completed and presented for assessment by **2 September 2022** to allow sufficient time for external moderation.
- (b) During this phase, the teacher will conduct any final assessments that are outstanding. All the phases of the PAT are to be kept safely until the moderation process is completed at all levels (both provincial and national moderation).
- (c) **The internal moderator/departmental head 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 areas that are not included in the initial criteria.
- (f) When learners are selected during moderation (face moderation), they may be required to showcase their practical or drawing 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 it to the learners not later than the **first week after the opening of schools in January 2022**.

**The products/models should not leave the classroom/workshop and must always be kept in a safe place 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/ departmental head.

## **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 assessments 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 consider 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 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**

Learner's name: \_\_\_\_\_

Time Allowed: Term 1 to Term 3

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.

<b>TERM</b>	<b>WORK TO BE DONE</b>	
Term 1	Phase 1	Construction of a brick manhole.
Term 1	Phase 2 (Part 1)	Research, drawings and cutting list.
Term 2	Phase 2 (Part 2)	Measuring, marking and cutting of sheet metal.
Term 3	Phase 2 (Part 3)	Assembling the components of the flower pot and base. Safeguard the edges of the pot and tray.

**3.1 Instructions to the learner**

- This PAT 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 or omitted.
- 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: Construction of a brick manhole****Term: 1****Duration of phase 1: 5 hours per learner****Mark allocation: 20 marks****TASK:**

Construction of a brick manhole with straight pipe and benching.

**INSTRUCTIONS:**

- Set and mark out the one-brick walls of the manhole on the floor to a size not more than 1 150 mm x 1 150 mm.
- Dry pack 4 brick courses in stretcher bond to create the walls of the manhole.
- The teacher should prepare the pipe with the open channel for learners, and the same pipe can be used by all learners.
- Position the pipe in the brickwork in such a way that the pipe is visible at both sides of the brickwork.
- Place and finish off the benching with a mixture of lime and sand in the manhole (moist sand can also be used for this purpose).

**3.3 Marking guidelines for Phase 1**

<b>ASSESSMENT OF THE CONSTRUCTION OF THE MANHOLE</b>				
<b>LEARNER'S NAME AND SURNAME:</b> _____				
<b>ASSESSMENT CRITERIA</b>	<b>GOOD/ EXCELLENT</b>	<b>AVERAGE</b>	<b>POOR/ NOT ATTEMPTED</b>	<b>MODERATE D MARK</b>
	<b>8-10</b>	<b>4-7</b>	<b>0-3</b>	<b>0-10</b>
Walls of the manhole are marked out and the corners are square				
Walls of the manhole are correctly dry packed in stretcher bond and are square and plumb				
Positioning of the pipe with open channel into the brickwork				
Positioning of sewer pipes				
Positioning and joining of channel to sewer pipes				
Benching correctly positioned, sloped and finished				
<b>TOTAL OUT OF 60</b>				
<b>CONVERTED TOTAL OUT OF 20</b>				

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



**3.4 Phase 2: Flower pot with tray****Terms 1, 2 and 3**  
**Duration: 20 hours****TASK:**

You are required to design and make a flower pot with a tray.

**INSTRUCTIONS:**

- Research different types of designs of flower pots made of sheet metal.
- Draw at least THREE designs of a flower pot with a base.
- Select the preferred design and draw a scale drawing of the front, top and left views (working drawings) of the flower pot that you are going to make. Show ALL measurements/dimensions on your drawing.
- Design and draw the development of a tray to be placed under the flower pot to drain the water.
- Compile a material list for the flower pot with a base and a tray.

**Use the following specifications:**

- The shape of the flower pot should consist of the development of any appropriate geometrical shape of your choice.
- The development of the flower pot base and tray must be drawn to scale 1 : 1 on cardboard or any suitable material.
- Edges must be safe for handling.

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

**3.5 Marking guidelines for Phase 2**

<b>MARKING GUIDELINES FOR ASSESSMENT OF THE FLOWER POT WITH TRAY</b>				
<b>LEARNER'S NAME AND SURNAME:</b> _____				
<b>ASSESSMENT CRITERIA</b>	<b>GOOD/ EXCELLENT</b>	<b>AVERAGE</b>	<b>POOR/NOT ATTEMPTED</b>	<b>MODERATED MARK</b>
<b>PLANNING</b>	<b>8–10</b>	<b>4–7</b>	<b>0–3</b>	<b>0–10</b>
Research on different types of flower pots				
THREE freehand/Instrument drawings of different designs for flower pots				
Material list to indicate materials needed				
<b>SCALE DRAWINGS</b>	<b>4–5</b>	<b>2–3</b>	<b>0–1</b>	<b>0–5</b>
Correctness of front view				
Correctness of top view				
Correctness of left view				
Dimensions and application of scale				
<b>TOTAL: 50</b>				
<b>DEVELOPMENT DRAWING TO SCALE</b>	<b>14–20</b>	<b>8–13</b>	<b>0–7</b>	<b>0–20</b>
Draw and cut out templates for the development of any shape for the flower pot base and tray				
<b>TOTAL: 20</b>				
<b>FABRICATION OF FLOWER POT</b>	<b>8–10</b>	<b>5–7</b>	<b>0–4</b>	<b>0–10</b>
Marking of shape on sheet metal using templates				
Cutting out of the development of flower pot using appropriate tools				
Use of appropriate apparatus/alternative method to bend sheet metal				
Joining ends of the flower pot shape using appropriate joining methods				
Ensuring safe edges				
<b>TOTAL: 50</b>				

<b>ASSESSMENT CRITERIA</b>	<b>GOOD/ EXCELLENT</b>	<b>AVERAGE</b>	<b>POOR/ NOT ATTEMPTED</b>	<b>MODERATED MARK</b>
<b>FABRICATION OF BASE AND TRAY OF FLOWER POT</b>	<b>8-10</b>	<b>5-7</b>	<b>0-4</b>	<b>0-10</b>
Using templates of the development to mark out the shape on the sheet metal for the base and tray				
Use of tools to cut out the base and tray accurately				
Shaping of base and tray using appropriate bending methods				
Joining of the base to the flower pot				
<b>TOTAL: 40</b>				
<b>FINISHING OF PRODUCT</b>	<b>8-10</b>	<b>4-7</b>	<b>0-3</b>	<b>0-10</b>
Cleaning of joints, neatness and appearance of the final product				
<b>TOTAL: 10</b>				
<b>INNOVATION AND CREATIVITY</b>	<b>4-5</b>	<b>2-3</b>	<b>0-1</b>	<b>0-5</b>
The learner added features to improve the appearance and functionality of the flower pot and tray				
<b>TOTAL: 5</b>				
<b>GENERAL ASPECTS</b>	<b>4-5</b>	<b>2-3</b>	<b>0-1</b>	<b>0-5</b>
Adherence to deadlines				
<b>TOTAL: 5</b>				
<b>TOTAL OUT OF 180</b>				
<b>CONVERTED TOTAL OUT OF 80</b>				

**3.6 Composite mark sheet for CIVIL SERVICES PAT**

NO.	SURNAME AND NAME OF LEARNER	PHASE 1		PHASE 2 (MODEL)							TOTAL					
		TERM 1		PART 1 TERM 1		PART 1 TERM 2		PART 3 TERM 3								
		PHASE 1	MODERATED MARK	PLANNING AND SCALE DRAWINGS	DEVELOPMENT DRAWING TO SCALE	FABRICATION OF FLOWER POT	FABRICATION OF BASE AND TRAY OF FLOWER POT	FINISHING OF PRODUCT	INNOVATION AND CREATIVITY	GENERAL ASPECTS	TOTAL PHASE 2	MODERATED MARK	CONVERTED TOTAL	MODERATED MARK	TOTAL: (PHASE 1 + PHASE 2)	MODERATED MARK
		20	20	50	20	50	40	10	5	5	180	180	80	80	100	100
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
	<b>TOTAL</b>										<b>TOTAL</b>					

\_\_\_\_\_  
Signature of Teacher

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Moderator

\_\_\_\_\_  
Date

SCHOOL STAMP

## SECTION 4

### 4. OTHER RELEVANT INFORMATION

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

The absence of a PAT 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 must 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 and Phase 2 (Part 1)

##### Term 2:

- Phase 2 (Part 2)

##### Term 3:

- Phase 2 (Part 3)

**The product/model should be manufactured in the workshop under the teacher's supervision.**

**NOTE:** The learners should start with the model at the beginning of Term 1 and complete it by **2 September 2022**. 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: .....



**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 far as I know, the above declaration by the candidate is true and I accept that the work offered is his/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 built environment/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.