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CIVIL TECHNOLOGY (CIVIL SERVICES)

GUIDELINES FOR PRACTICAL ASSESSMENT TASKS

GRADE 12

2023

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 have 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 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 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 **1 September 2023**.

- (a) All the phases of the PAT should be completed and presented for assessment by **1 September 2023** to allow sufficient time for external moderation.
- (b) During this phase, the teacher will do 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/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, inclusive of 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 2023**.

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 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 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 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 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.**

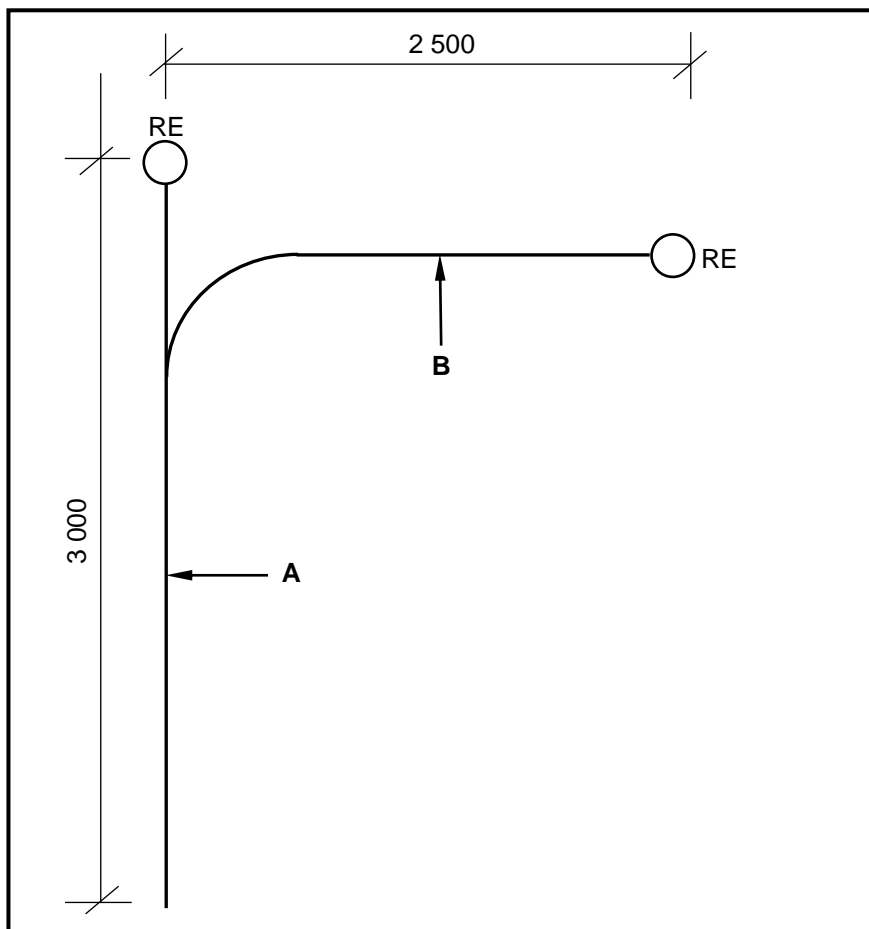
TERM	WORK TO BE DONE	
Term 1	Phase 1	Setting out the fall/gradient
Term 1	Phase 2 (Part 1)	Research, drawings and cutting list
Term 2	Phase 2 (Part 2)	Measuring, marking, bending and cutting of sheet metal
Term 3	Phase 2 (Part 3)	Assembling all components of the braai stand. Safeguard the edges.

3.1 Instructions to the learner

- This practical assessment task (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, 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: Setting out the fall/gradient for a drainage (sewerage) system.**Term: 1****Duration of Phase 1: 5 hours per learner****Mark allocation: 20 marks****TASK:****Setting out the fall/gradient for a drainage system.**

FIGURE 1 below shows the layout of a drainage system.

**FIGURE 1****INSTRUCTIONS:**

- Calculate the fall/gradient for a 100 mm diameter drainpipe and show evidence of the calculations for assessment and moderation.
- Mark the layout of the pipes on the floor.
- Position the pipes and fittings as indicated in the layout diagram.
- Join the pipes and fittings according to the layout drawing.
- Position the pipes at the correct fall/gradient using the correct equipment and material.

3.3 Marking guidelines for Phase 1

ASSESSMENT CRITERIA FOR THE SETTING OUT				
LEARNER'S NAME AND SURNAME: _____				
ASSESSMENT CRITERIA	GOOD/ EXCELLENT	AVERAGE	POOR/NOT ATTEMPTED	MODERATED MARK
	8–10	4–7	0–3	0–10
Calculations for the fall/gradient of pipes A and B correctly calculated				
Marking the layout of the pipes on the floor				
Correct positioning of pipes				
Joining of fittings to drainage pipes				
SETTING OUT OF THE FALL/GRADIENT	16–20	8–15	0–7	0–20
Set the gradient for pipe A correctly using the correct equipment and material.				
Set the gradient for pipe B correctly using the correct equipment and material				
TOTAL OUT OF 80				
CONVERTED TOTAL 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 or memory stick (Backup).

3.4 Phase 2: Braai stand**Terms: 1, 2 and 3****Duration: 20 hours****TASK:****You are required to design and make a braai stand.****INSTRUCTIONS:**

- Research different types of designs of braai stands made of sheet metal with sheet metal legs OR legs made of appropriate pipes as used in Civil Services that will be big enough to braai meat for TWO people.
- Draw (freehand or with instruments) at least THREE designs of a braai stand made of sheet metal.
- Select the preferred design and draw a scale drawing of the front, top and left views (first-angle orthographic working drawings) of the braai that you are going to make. Show ALL measurements/dimensions on your drawing.
- Design and draw the development of the braai that is made of sheet metal with sheet metal legs OR legs made of appropriate pipes as used in Civil Services.
- Trace down the shapes of the developments to scale 1 : 1 on any appropriate material and cut out to use as templates.
- Compile a cutting list for all the materials for the sheet metal braai stand.
- Compile a schedule of stages and timeframes for the completion of the braai stand.

Use the following specifications:

- The shape of the braai stand should consist of the development of any appropriate geometrical shape of your choice.
- Edges must be safe for handling.
- Learners should use their innovation and creativity in making the sheet metal braai stand.
- The legs of the braai stand can be made with sheet metal OR appropriate pipe material as used in Civil Services
- Apply the appropriate joining methods.

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 BRAAI STAND				
LEARNER'S NAME AND SURNAME: _____				
ASSESSMENT CRITERIA	GOOD/ EXCELLENT	AVERAGE	POOR/ NOT ATTEMPTED	MODERATED MARK
PLANNING	8–10	4–7	0–3	0–10
Research on different types of braai stands made of sheet metal with sheet metal legs OR legs made of appropriate pipes as used in Civil Services				
THREE freehand/instrument drawings of different designs of the braai stand				
Compiling of cutting list to indicate material needed of the preferred design				
Compiling a schedule of stages and timeframes for the completion of the braai stand				
TOTAL: 40				
SCALE DRAWINGS OF PREFERRED DESIGN	4–5	2–3	0–1	0–5
Correctness of front view				
Correctness of top view				
Correctness of left view				
Dimensions indicated on views				
TOTAL: 20				
SCALE DRAWING OF DEVELOPMENT	11–15	6–10	0–5	0–15
Development drawings and templates of the braai stand				
TOTAL: 15				
FABRICATION OF THE BRAAI STAND	8–10	5–7	0–4	0–10
Marking shapes on sheet metal using templates				
Cutting out developments of the braai using appropriate tools				
Cutting, bending and joining the braai stand using appropriate joining methods				
Ensuring safe edges				
TOTAL: 40				

ASSESSMENT CRITERIA	GOOD/ EXCELLENT	AVERAGE	POOR/ NOT ATTEMPTED	MODERATED MARK
FABRICATION OF THE LEGS OF THE BRAAI STAND	8–10	5–7	0–4	0–10
Using templates to mark out the shape of the legs/Measuring pipes for the legs				
Use appropriate apparatus/alternative methods to cut out the legs to the appropriate length				
Shaping legs using appropriate bending methods/appropriate joining methods used to join pipes for legs				
Joining the legs to the braai using any appropriate method				
TOTAL: 40				
FINISHING OF PRODUCT	8–10	4–7	0–3	0–10
Cleaning of joints and finishing of the final product				
TOTAL: 10				
FINAL PRODUCT	4–5	2–3	0–1	0–5
Neatness, appearance and functionality of the final product				
TOTAL: 5				
INNOVATION AND CREATIVITY	4–5	2–3	0–1	0–5
The learner enhances his/her chosen design by adding features to improve the appearance and functionality of the braai				
TOTAL: 5				
GENERAL ASPECTS	4–5	2–3	0–1	0–5
Adherence to deadlines				
TOTAL: 5				
TOTAL OUT OF 180				
CONVERTED TOTAL OUT OF 80				

3.6 Composite mark sheet for Civil Services PAT

	SURNAME AND NAME OF LEARNERS	PHASE 1		PHASE 2 (MODEL)								TOTAL						
		TERM 1		PART 1 TERM 1		PART 2 TERM 2		PART 3 TERM 3										
		SETTING FALL/GRADIENT	MODERATED MARK	PLANNING	SCALE DRAWINGS	DEVELOPMENT DRAWING TO SCALE	FABRICATION OF BRAAI	FABRICATION OF THE LEGS OF THE BRAAI	FINISHING OF PRODUCT	FINAL PRODUCT	INNOVATION AND CREATIVITY	GENERAL ASPECTS	TOTAL PHASE 2	MODERATED MARK	CONVERTED TOTAL	MODERATED MARK	TOTAL (PHASE 1 + PHASE 2)	MODERATED MARK
NO.		20	20	40	20	15	40	40	10	5	5	5	180	180	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. 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 and scale drawings 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 **1 September 2023**. 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.

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.