



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ENGINEERING GRAPHICS AND DESIGN

GUIDELINES FOR PRACTICAL ASSESSMENT TASKS

2018

These guidelines consist of 27 pages.

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1. INTRODUCTION

The 16 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
- 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 A (TEACHER GUIDELINES)

2. THE STRUCTURE OF THE PRACTICAL ASSESSMENT TASK (PAT) FOR EGD

As the Engineering Graphics and Design (EGD) **PAT** is a **compulsory national formal assessment task** that contributes 25% (i.e. 100 marks) towards a learner's final NSC mark, it is essentially the **third NSC examination paper** of EGD. All the **presentation requirements must therefore be adhered to and**, with the exception of the required research, **completed at school**, under the supervision of the EGD teacher. **Each learner must complete the PAT individually** and **ALL** the presentations must be **his/her own original work**.

The primary purpose of the EGD PAT is to assess four subjective content and concept topics which are not assessed in the examination papers. These are:

- The design process
- The application of drawing knowledge and drawing skills to the design process
- CAD management and drawings
- The quality and neatness of free-hand, instrument and CAD drawings

The EGD PAT is therefore designed to develop a learner's ability to integrate and apply knowledge and to demonstrate acquired levels of skills and competency. With the inclusion of the PAT into EGD, the learner is given an opportunity to apply

acquired knowledge, skills and values in a creative way through the design process. The learner is given an opportunity to complete the PAT in an environment which is more conducive to the creative processes. This environment should therefore provide the learner with easier access to, and a wider variety of, resource material than would be available in a formal examination.

The various components of the EGD PAT gives the learner an opportunity to demonstrate the level of drawing skill that has been attained in all the appropriate drawing methods through the presentation of the required drawings. Each EGD PAT consists of TWO parts:

- **Part A:** The design process
- **Part B:** Required working and pictorial drawings

Part A of both PATs requires that the learner demonstrates a clear understanding of, and **Part A** is able to apply, the design process. As part of the design process, the learner must be able to do the following:

- Identify the primary problem and secondary problems and formulate a design brief with specifications and constraints
- Conduct and use relevant external research in an appropriate way
- Generate a number of own ideas/concepts/solutions analytically and graphically through comprehensive freehand drawings
- Select a final solution(s) that demonstrates a clear understanding of the design brief
- Present the final solution(s) as working drawings and pictorial drawings
- Provide clear evidence of continuous self-evaluation during the development of the PAT

Part B of both PATs requires that the learner demonstrates and provides evidence of a high level of knowledge and understanding of the concepts and content of Engineering Graphics and Design through the presentation of orthographic drawings and pictorial drawings.

Part A and Part B of both PATs also give the learner the opportunity to demonstrate that a high level of competency and skill has been attained in the following required EGD drawing methods:

- Freehand drawings prepared in pencil
- Instrument drawings prepared in pencil
- Using a CAD (Computer-aided Drawing/Design) system

TWO practical assessment tasks (PATs) are included in this document:

- **PAT 1** is a design task in the context of civil technology
- **PAT 2** is a design task in the context of mechanical technology

Each learner must, with the guidance of the teacher, **select ONE** of the PATs contained in this document.

Elements that make up the PAT mark for Engineering Graphics and Design

ELEMENTS OF THE MARK FOR THE PRACTICAL ASSESSMENT TASK	
ELEMENT	MARK
The design process	25
The correctness of the working and pictorial drawings	50
The drawing methods (freehand, instrument and CAD)	25
TOTAL	100

3. ADMINISTRATION OF THE PAT

At the beginning of the academic year the EGD teacher must ensure that **every Grade 12 learner receives a copy of the entire SECTION B** of the PAT document, i.e. **ALL the pages from page 8 to page 27**.

The completed phases of ALL the PATs must be submitted in time for summative assessment to be done before the commencement of phase moderation in the second and third terms and provincial moderation in the third term. The PATs must therefore be **completed in the following phases during the first three terms**:

- **Phase 1:** ALL the phase 1 presentation requirements, i.e. the design process (completed **by the end of term 1**)
- **Phase 2:** ALL the phase 2 presentation requirements, i.e. **ALL the presentation drawings** (completed **by the end of term 2**)
- **Phase 3:** ALL the phase 3 presentation requirements, i.e. the **completion of PAT file/portfolio** (completed **before** the commencement of **provincial/final moderation** in **term 3** or at the latest **before** the commencement of the **preparatory examinations**)

Although the phases could be done either CYCLICALLY or in BLOCK TIMES, as indicated in the EGD CAPS, it is recommended that ONE ENTIRE DAY per term, e.g. as an extra paper during the June examinations, be allocated for each phase.

The **teaching/period time** that may be allocated **for the completion of all three phases** of the PAT is **12 hours to a maximum of 16 hours**. Additional non-teaching-/non-period time may, however, also be allocated for the completion of the PAT at the school. However, the **total maximum time** for the completion of all the phases of the PAT **should not exceed 20 hours**.

To ensure that the PAT is completed within the stipulated time it is essential that the teacher draw up a PAT **pacesetter/management plan**, with target dates that are in line with the Annual Teaching Plan of the EGD CAPS and the prescribed completion of the phases of the 2018 EGD PAT, for the learners at the beginning of the year. This will help learners to assess their own progress and teachers to set up intervention programmes.

NOTE:

- **ALL the presentation requirements** of the selected PAT **must be adhered to and**, with the exception of the required research, **completed at school under the guidance and supervision of the EGD teacher**, who must observe the learners' progress at all times.
- **Not adhering to this instruction will be deemed to be an examination irregularity.**
- It is the **teacher's responsibility** to ensure that **each learner's PAT** is of an **appropriate higher-order Grade 12 complexity**.

4. ASSESSMENT AND MODERATION OF THE PAT

4.1 Assessment

The assessment of the PAT must be done according to the included relevant Assessment Criteria and Checklist.

Frequent developmental feedback is needed to guide and give support to each learner and to ensure that each learner is on the right track. Both formal and informal assessment should therefore be conducted throughout the development of the PAT. Informal assessment can be conducted by the learner, a peer or by the teacher. **However, the teacher must conduct ALL the formal assessment and record the results on the official mark sheets himself/herself. Each learner's marks must also be indicated on the official 2018 summative assessment sheet in the learner's PAT file/portfolio.**

The completed PAT must be submitted in time for final formal assessment to be done before the commencement of provincial/final moderation or, at the latest, before the preparatory examinations in the **3rd term. Once the PAT has been formally assessed the teacher must retain the PAT for the purpose of external moderation.** All the PATs must also be retained at the school for the period of time, as prescribed by the provincial departments of education.

Clarification of level descriptive and the verification of marks:

- **A 1-mark level descriptive:**
 - A **1-mark** is allocated to **elementary/basic** presentation requirements and/or drawing features that should be **done correctly**.
 - A **1-mark** is therefore **done** or **not done**, but for **done correctly**, i.e. 1 for right or 0 (zero) for wrong, even if done, e.g. if hatching on the floor plan is done, but not done correctly.
- **A 2-mark level descriptive:**
 - A **0 (zero)** must be allocated if **not done** or if **little/no evidence of knowledge** of the requirement and/or drawing feature(s) is shown and/or **very poor**, e.g. the design.
 - **1-mark** must be allocated if **done** and if **some evidence of knowledge** is shown, but the requirement(s) and/or drawing feature(s) is **not completely correct** and/or **complete** and/or **compliant** and/or **achieved** and/or **clear** and/or **just average**.
 - **2-marks** may only be allocated if **ALL evidence of knowledge** is shown and the requirement(s) and/or drawing feature(s) is **completely (at least 90%+) correct** and/or **complete** and/or **compliant** and/or **achieved** and/or **clear** and/or **very good**.
- **A 7-mark level descriptive:**

The 7-mark descriptive of simplified rubric on page 45 of the EGD CAPS must be used. This implies that a **7 can only be allocated** if the presentation requirement is **completely (100%) correct/compliant**.
- **Verification of ALL final marks out of 10:**

Each final mark out of 10 for each assessment criteria **must be verified according to the simplified 10-mark rubric** on page 25 of this document.

This implies that a **10 can only be allocated** if the presentation requirement is **completely (100%) correct/compliant**.

NOTE:

The concept of '**benchmarking**', i.e. the identification and mark allocation of the best example(s) for each assessment criterion, should be applied when the PATs are being assessed.

4.2 Moderation

The moderation of the PAT must be done according to the included relevant Assessment Criteria and Checklists.

Monitoring and/or moderation of the PAT can take place at any time during the development of the PAT. ALL completed presentation requirements of the PAT must therefore always be available at the school. However, in order to make provision for intervention programmes, **the following phase moderation must be done during the second and third terms:**

- **Phase 1:** Design process (beginning of the 2nd term before the commencement of phase 2 or the June examinations)
- **Phase 2:** Presentation drawings (beginning of the 3rd term before the commencement of phase 3)

During the moderation process the moderator will randomly select the PAT files/portfolios that have to be moderated. To assist the process of final provincial moderation the teacher must supply the moderator with a completed mark sheet(s) and a merit list(s).

During the moderation process learners may be called upon to explain the functions and principles of operating a CAD system and to demonstrate drawing skills through performing capability tasks.

4.3 Declaration of authenticity

Prior to the final submission of the PAT for formative assessment ALL the learners and the teacher must complete the declaration of authenticity, as set out on the final page of this document.

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 learners' life skills and provides opportunities for learners to engage in their own learning.

SECTION B (LEARNER TASKS)

General information and instructions:

- The EGD PAT is a **compulsory national formal assessment task** that contributes 100 marks towards your final National Senior Certificate (NSC) mark.
- This **document contains TWO PATs**, i.e. a civil design project (PAT 1) and a mechanical design project (PAT 2). **You, the learner**, with the guidance of your EGD teacher, **must select ONE** of the PATs contained in this document.
- ALL the **presentation requirements** of the selected PAT **must be adhered to** and, with the exception of the required research, **completed at school**, under the guidance and supervision of your EGD teacher.
- The PAT must be **completed individually** and **ALL the presentations**, including the front page and index, must be **your own original work**.
- The PAT must be **completed in phases and within the given time frame** of your teacher's PAT work schedule/pace setter/management plan.
- ALL **freehand drawings** and **instrument drawings** must be **prepared in pencil**.
- The PAT must be of an appropriate **higher-order Grade 12 complexity**.
- The PAT **will be assessed according to** the relevant **ASSESSMENT CRITERIA** and **CHECKLIST**, i.e. pages 15 and 16 or pages 22 and 23, included in this PAT document.
- Untidy and messy work, as well as the late submission of presentation requirements, will be penalised.

6. PRACTICAL ASSESSMENT TASK 1 (PAT 1)

A civil design project

Scenario

The Department of Health identified the need to improve primary health care around South Africa by establishing community health care facilities in partnership with local industries.

In a rural area near you the existing clinic is very old, overburdened and too small to provide effective comprehensive healthcare to the community. Following consultations between a nearby manufacturing company and the local government, it was agreed that a new health care facility was needed for the community to enable access to comprehensive healthcare without having to travel long distances. The project consists of the construction of a new health care facility that will offer the community access to doctors, a dentist and a surgery/emergency room for minor procedures.

Having been commissioned to provide a proposed design solution for the health care facility on the designated site, STAND 1304, you were informed that the initial allocated budget will allow for a single-story building, with a corrugated iron roof of hip and valley design, which may not exceed 260m². You were also informed that any trees in the way of the development may be removed.

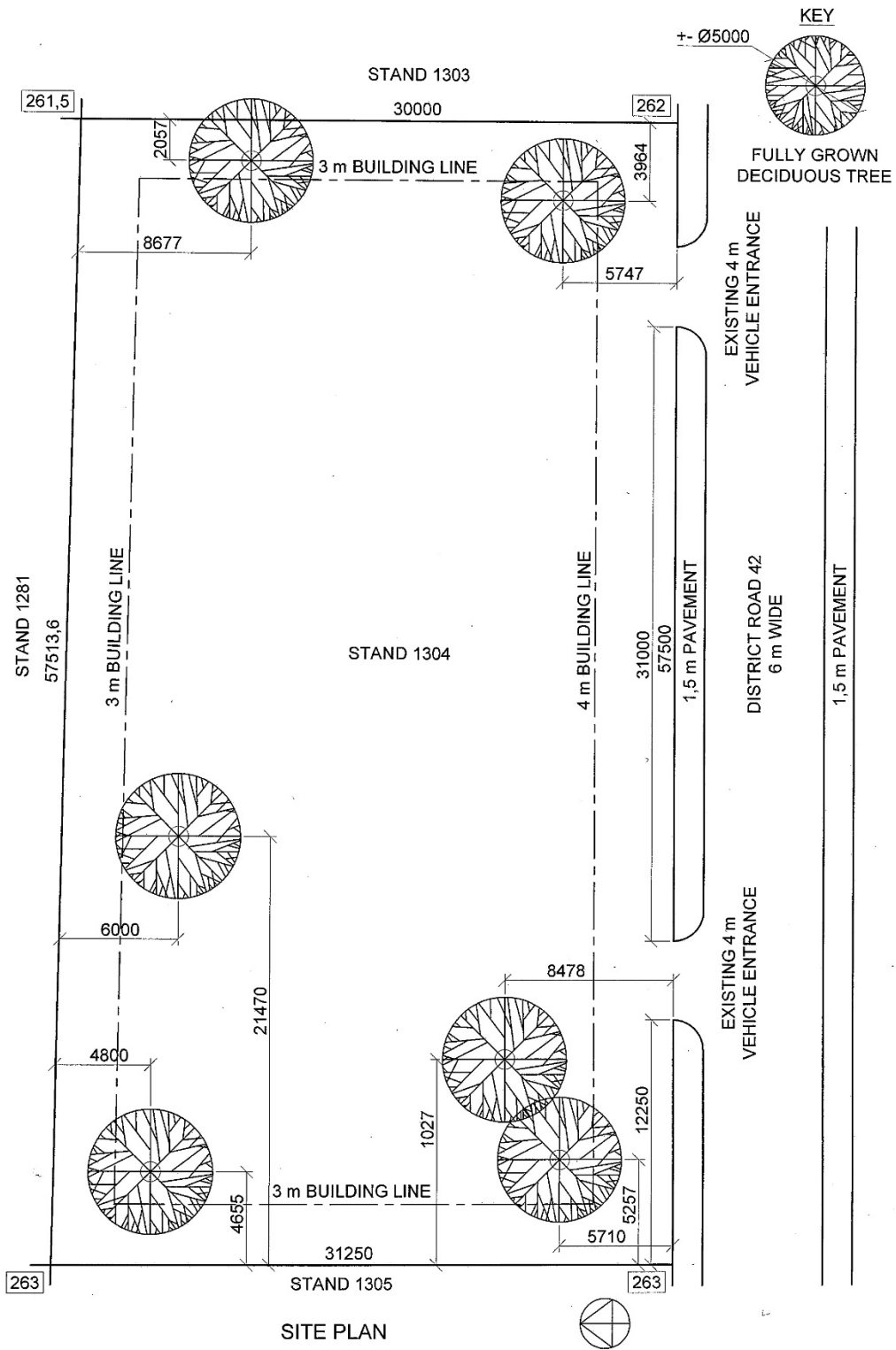
In a meeting with the Department of Health it was indicated that the entire facility must be wheelchair friendly and that the building must consist of the following:

- A reception area with a reception desk big enough to accommodate two administrative clerks
- Ten filing cabinets
- A waiting area with chairs for 20 patients
- Three doctor's consulting rooms, each big enough to accommodate a desk with a chair, two additional chairs, a cupboard, an examination bed, a small bedside table and a wash basin
- One fully equipped dentist room big enough to accommodate a desk with a chair, a dentist chair and the necessary dentistry equipment, an additional chair, a cupboard and a wash basin
- An emergency room suitable for minor procedures, no smaller than 40 m², with two wash basins
- A change room with a small locker, a toilet and a wash basin for the patients
- A bathroom facility with a toilet, wash basin and shower for the staff members
- A small kitchen with a fridge, a sink and a small built-in cupboard
- Public male and female toilet facilities, which must be part of the building, but accessible from the outside only. The female toilet facilities must have two toilets and a wash basin while the male toilet facilities must have a urinal, a toilet and a wash basin.
- It was also indicated that the facility must make use of a septic tank system for all the waste water.

Apart from the main entrance, the building also requires an external double door which leads to the emergency room, as well as a double door emergency exit away from the other entrances. The development must also include fifteen demarcated parking bays and a demarcated ambulance zone.

The proposed future plans are to eventually increase the capacity of the facility by adding a further 200 m² wing to the building. You have been asked to clearly show the outlines thereof on the site plan and to labelling it 'proposed future wing'.

Given: The site plan of STAND 1304, which has been demarcated for the new health care facility.



PHASE 1 presentation requirements

- Identify the primary and secondary problem(s) and formulate your own design brief on the given scenario.
Include the following as part of the design brief:
 - An extended and comprehensive list of specifications for the project
 - A list of at least FIVE constraints that are relevant to the task
 - A list of ALL the presentation requirements of the PAT task together with a management plan for the development of the PAT

- Conduct your own research on:
 - Wheelchair friendly requirements, design features and fixtures
 - The furniture for and layouts of reception areas and waiting areas
 - The design and structure of hip and valley roofs
 - Complete septic tank systems

NOTE:

- The research must be relevant and usable.
- Evidence of ALL the relevant resource material used must be presented as proof that the required research had been done.
- There must be clear evidence that the research was used.
- Include a list of ALL references (bibliography).

3. Generate THREE neat freehand drawings of the layout of THREE possible design solutions for the building of the healthcare facility. Each freehand drawing must show all primary dimensions and relevant labels as well as the correct presentation of ALL building features, permanent fixtures, the roof line and where the proposed future 200 m² wing will be. The calculation and indication of the area of each possible solution must also be clearly shown.

NOTE:

- The electrical fittings and waste-water disposal systems (sewerage) are not required for the freehand drawings.
- ALL the features and fixtures should be drawn proportionally the same size. Grid/Graph paper should therefore be used.
- These drawings must provide clear evidence that a high level of competency has been attained in freehand drawings as one of the required EGD drawing methods.
- All the drawings must comply with the *SANS 10143 Guidelines*.

4. Select the best solution, which demonstrates a clear understanding of the design brief within the context of the specifications and constraints. Create a table and use at least EIGHT relevant criteria to evaluate and compare the possible design solutions of the THREE freehand drawings. Include a comprehensive summary of the reasons for the solution selected.

PHASE 2 presentation requirements

5. Present the selected solution as a set of working drawings and a pictorial drawing (5.1, 5.2 and 5.3) that adhere to the following:
- All the working drawings must be presented on appropriately sized drawing sheets, correctly set up with borders. However, only the first working drawing's drawing sheet (5.1.1), has to be set up with a complete civil title panel.
 - The drawings must provide clear evidence that a high level of competency had been attained in the following TWO required EGD drawing methods:
 - Instrument drawings
 - CAD (Computer-aided Drawing/Design)
- NOTE:**
- ONE entire working drawing (i.e. 5.1.1, 5.1.2 and 5.1.3 or 5.2) must be prepared as an instrument drawing and the other using a CAD system.
 - The perspective drawing (5.3) may be prepared either as an instrument drawing or by using a CAD system.
 - Schools that do not have CAD facilities must prepare all the required drawings (5.1, 5.2 and 5.3) as instrument drawings.
- The title panel and ALL the working drawings must comply with the *SANS 10143 Guidelines*.
- 5.1 Draw detailed layout drawings of the selected proposed building for the healthcare facility, clearly showing all the required building features. The drawing must show a minimum of FOUR orthographic views drawn to a suitable scale(s) suitable scales.

The detailed views must include the following:

5.1.1 The floor plan of the building

5.1.2 A sectional elevation, that includes a door and window, of the building

5.1.3 TWO elevations of the building, showing the front view and a side view

The following must also be included on all relevant views:

- ALL sanitary, kitchen and other permanent fixtures
- A detailed layout of the reception and waiting area
- ALL electrical fittings and the wiring detail
- Waste-water disposal systems (sewerage)
- Titles, labels and notes
- Scale(s)
- Dimensions
- Cutting plane(s)
- All hatching detail
- North point

5.2 Draw a detailed site plan to a suitable scale.

The following must be included:

- ALL the given site detail and features
- The proposed building for the healthcare facility
- The outlines of the proposed future 200 m² wing
- The fifteen demarcated parking bays
- The demarcated ambulance zone
- The septic tank system
- ALL sewerage and drainage connections to the septic tank system
- Title, labels and notes
- Scale
- Dimensions, including the reference/setting out dimension and corner heights
- North point

5.3 Draw a detailed human eye view interior perspective drawing of the reception area and waiting room of the proposed building, i.e. a perspective drawing that shows the inside of the reception area and waiting room.

Evidence of the following must be included/shown:

- All views/drawings used to produce the drawing
- The construction/method used to produce the drawing

NOTE:

A copy of the perspective drawing, which may contain artistic features, must be used as a picture for the cover page of the PAT file/portfolio.

PHASE 3 presentation requirements

Create a PAT file/portfolio containing:

- A complete cover page
- An index
- The 2018 SUMMATIVE ASSESSMENT SHEET (see page 26)
- The completed DECLARATION OF AUTHENTICITY (see page 27)

Present the following phase 1 and phase 2 presentation requirements in the PAT file/portfolio after the DECLARATION OF AUTHENTICITY:

1. ALL the design brief requirements
2. Evidence of ALL the relevant resource material used for the required research
3. The THREE freehand drawings of the possible design solutions
4. ALL the evidence of the selection of the best solutions
5. ALL the required working drawings (5.1 and 5.2) and the perspective drawing (5.3)
6. Using the included checklist (assessment criteria), clear evidence of continuous self-evaluation of the entire process and of the meeting of all the deadlines during the development of the PAT

NOTE:

Include the following on each page of each presentation requirement:

- Clear numbering according to the numbers of the presentation requirements
- Your (the learner's) name
- The date of completion and submission

Assessment criteria and checklist for the 2018 EGD Civil PAT

- The SUMMATIVE ASSESSMENT SHEET on page 26 of the EGD PAT document must be used to indicate the final totals out of 10 for each assessment criterion.
- The contribution of each aspect of the PAT is as follows:
 - The design process, i.e. presentation requirements numbers 1, 2, 3, 4, 6 and 7, will contribute 25 marks to the final PAT mark out of 100
 - The working drawings and a pictorial drawing, i.e. presentation requirement number 5, will contribute 50 marks to the final PAT mark out of 100
 - Drawing methods, drawing skills and presentation, which should be assessed according to ANNEXURE A, will contribute 25 marks to the final PAT mark out of 100

ASSESSMENT CRITERIA AND CHECKLIST FOR THE 2018 EGD CIVIL PAT							
1-mark level descriptive	0	No evidence/not done or not correct/complete/compliant/achieved/very poor			Checked	Suggested mark allocation	Own marks/ notes/ comments
	1	All evidence shown/correct/complete/compliant/achieved/clear					
2-mark level descriptive	0	No evidence/not done/very poor			Checked	Suggested mark allocation	Own marks/ notes/ comments
	1	Evidence shown but not correct/complete/achieved/clear/average					
	2	All evidence shown/correct/complete/compliant/achieved/clear/very good					
1. Design Brief							
	1.1	Identifying the primary problem and secondary problems in own words				2	
	1.2	Formulating of a design brief in own words				2	
	1.3	List of the given specifications and a list of your own extended specification				2	
	1.4	List of at least FIVE constraints that are relevant to the project				2	
	1.5	List of the PAT requirements together with a management plan				2	
					TOTAL	10	
2. Research (This should be restricted to a maximum of THREE A4 or TWO A3 pages per topic)							
Relevant and usable research on:	2.1	wheelchair friendly requirements, design features and fixtures				2	
	2.2	The furniture for and layouts of reception areas and waiting areas				2	
	2.3	The design and structure of hip and valley roofs				2	
	2.4	Complete septic tank systems				2	
	Evidence that the research has been used						1
Bibliography/List of sources included						1	
					TOTAL	10	
3. Freehand drawings of THREE possible design solutions							
Assess each freehand solution as follows:	ALL the required building features and fixtures included		2	Final mark for each solution			
	Correct presentation of all building features & fixtures		2	Solution 1		10	
	The position/location of the proposed future 200 m² wing		1				
	Relative size/proportion of features to each other		2	Solution 2		10	
	Labels (2) + Dimensions (2) (2 + 2 = 4)		4				
	Area calculation clearly shown and within constraint		2	Solution 3		10	
	Design: Functionality and effective utilisation of space		2				
Subtotal = 15 ÷ 1,5 = TOTAL			15				
(1 = 1; 2 = 1; 3 = 2; 4 = 3; 5 = 3; 6 = 4; 7 = 5; 8 = 5; 9 = 6; 10 = 7; 11 = 7; 12 = 8; 13 = 9; 14 = 9; 15 = 10)							
4. Selecting the best freehand solution (This must be a separate presentation)							
Table created for an easily understandable presentation of the selection process						2	
Using at least EIGHT relevant criteria for the evaluation						2	
Relevant and comprehensive reasoning (evaluating and comparing) included						2	
A rating scale to score each solution, i.e. a mark allocation for each criterion						2	
A comprehensive summary of the reasons for the selected/final solution						2	
					TOTAL	10	
5. Working drawings and a pictorial drawing of selected solution							
Drawing sheet preparation							
Appropriately sized drawing sheets						1	
Borders on all the drawing sheets of working drawings						2	
Appropriate and complete civil title panel on the first working drawing's drawing sheet						7	
NOTE: Use the 7-mark simplified rubric on page 45 of the EGD CAPS.					TOTAL	10	
5.1 Detailed layout drawings of the selected proposed solution of the building							
5.1.1 Floor plan							
Correlation with selected freehand solution and the selection process summary						1	
ALL internal and external walls, incl. ALL hatching detail, and the roofline						2	
ALL doors and windows						2	
A detailed layout of the reception and waiting area						2	
ALL permanent fixtures, i.e. sanitary, kitchen and other required fixtures						2	
Waste-water disposal systems (sewerage)						2	
ALL electrical fittings and the wiring detail						2	
Title, labels and notes						2	
Dimensions						2	
Suitable scale correctly indicated (1) + Cutting plane (1) + North Point (1)						3	
					Subtotal = 20 ÷ 2 = TOTAL	10	

ASSESSMENT CRITERIA AND CHECKLIST FOR THE 2018 EGD CIVIL PAT				
5.1.2	Sectional elevation			
	Foundation and walls detail		2	
	Door(s) and window(s) detail		2	
	Roof detail		2	
	Labels and notes		2	
	Suitable scale selected & correctly indicated		1	
	Dimensions		2	
	Section correct according to the indicated cutting plane(s)		2	
	ALL hatching detail		2	
			Subtotal = 15 ÷ 1,5 = TOTAL	10
(1 = 1; 2 = 1; 3 = 2; 4 = 3; 5 = 3; 6 = 4; 7 = 5; 8 = 5; 9 = 6; 10 = 7; 11 = 7; 12 = 8; 13 = 9; 14 = 9; 15 = 10)				
5.1.3	TWO detailed elevations, showing the front view and a side view			
	Relevant views selected/shown		1	
	Walls and ALL other external features		2	
	Door and window detail		2	
	Roof detail, incl. rainwater items (must be a hip and rafter roof)		2	
	Waste-water disposal system (sewerage)		2	
	Drawn to same scale as the floor plan		1	
			TOTAL	10
5.2	Detailed site plan			
	Site (stand) correct drawn and ALL the given site detail/features are included		2	
	The new building, outline of proposed future wing, parking bays and ambulance zone		2	
	The septic tank system and ALL sewerage and drainage connections to the system		2	
	Suitable scale selected and indicated correctly		1	
	Dimensions, incl. reference/setting out dimension, corner heights, labels and notes		2	
	North point		1	
			TOTAL	10
5.3	Detailed interior perspective drawing of the reception and waiting area			
	Evidence of views/drawings and construction/method used for the drawing		1	
	Correct orientation of views and the correct HL high for a human eye view		2	
	Perspective drawing/answer (Use 7-mark rubric on page 45 of the EGD CAPS)		7	
			TOTAL	10
6.	Continuous self-evaluation and the meeting of deadlines			
	Completed checklist as evidence of continuous self-evaluation	(mark out of 10 ÷ 2)	5	
	The meeting of ALL the deadlines during the development	(mark out of 10 ÷ 2)	5	
			TOTAL	10
7.	Presentation of the complete PAT file/portfolio			
	Cover page		1	
	Index		1	
	Summative assessment sheet and declaration		1	
	Correct sequencing of ALL presentation requirements		1	
	Name and numbering on ALL the presentation requirements		1	
	General impression of file/portfolio, e.g. binding, appearance etc.	(mark out of 10 ÷ 2)	5	
			TOTAL	10
Assessment of drawing methods, drawing skills and presentation				
a	Freehand drawings			
	Freehand drawing methods and skills	(See ANNEXURE A on page 23)	10	
	Neatness, line work/line quality and printing	(See ANNEXURE A on page 23)	10	
b	Instrument drawings			
	Use of drawing instruments, drawing methods and skills	(See ANNEXURE A on page 23)	10	
	Neatness, line work/line quality and printing	(See ANNEXURE A on page 23)	10	
c	CAD drawings			
	Competence displayed in using a CAD system/program	(See ANNEXURE A on page 23)	10	
	Layout and correctness of the drawings presentation	(See ANNEXURE A on page 23)	10	

7. PRACTICAL ASSESSMENT TASK 2 (PAT 2)

A mechanical design project

Scenario

You are employed as a draughtsperson by a drafting firm that specialises in providing design services on HAND-OPERATED WORKSHOP TOOLS or INSTRUMENTS.

You are tasked with investigating and analysing the design features of existing hand-operated workshop tools or instruments and to come up with new or improved ideas. The improvement(s) to the tool or instrument could be one or more of the following:

- To improve efficiency
- To strengthen its current design
- To simplify its application

The PAT requires the following stages:

- The first stage involves selecting/finding a suitable hand-operated tool or workshop instrument, which must consist of THREE or more mechanical parts/components and movement as part of its operation/function.

NOTE: You are not required of you to purchase a new tool or instrument. The selected item should be one that is already available to you.

- The second stage involves the dismantling of the selected tool or instrument so that all the parts/components and mechanisms can be revealed, investigated and measured.
- The third stage involves the identification of ONE of the main parts/components or a combination of parts/components of the selected tool or instrument, which could be improved, modified or redesigned in some way. This will necessitate the application of the design process, as stipulated by the presentation requirements for this PAT.

Requirements and specifications of the selected tool or instrument:

- The tool or instrument must be submitted as part of the PAT presentation.
- It must be a portable hand-operated workshop tool or workshop instrument. Electrical and/or pneumatically (air) operated tools or instruments may therefore not be used.
- The tool or instrument must be an assembly consisting of a minimum of THREE different mechanical parts/components, e.g. crimping tool, compass, clamping device, combination square, drill support, pipe cutter, pipe clamp, shifting spanner, riveter, plumbing stock and die set etc., that includes mechanical movement as part of its operation/function.
- Your teacher must approve the tool or instrument in order to ensure that it meets all the requirements and that a PAT of an appropriate higher-order Grade 12 complexity can be produced.

PHASE 1 presentation requirements

1. Identify the primary and secondary problem(s) and formulate a comprehensive design brief.
Include the following as part of the design brief:
 - Your own comprehensive list of specifications for the selected tool or instrument
 - Your own list of constraints for the selected tool or instrument
 - A list of ALL the presentation requirements of the PAT together with a management plan for the development of the PAT

2. Conduct your own research on the following:
 - The material that are used for each individual part/component of the selected tool or instrument
 - The specific design features and/or function (purpose) of each individual part/component of the selected tool or instrument
 - In-depth research of the design, components/parts and mechanical movement (working) of at least TWO other models or makes of tools or instruments that are similar to the tool or instrument that you have selected.

NOTE:

- The research must be relevant and usable.
- Evidence of ALL the research conducted and the relevant resource material used must be presented as proof that the required research had been done.
The first two research requirements will be primarily hands-on investigative research, which can be presented by using the comprehensive set of detailed photographs taken during the second stage, with labels and/or notes indicating the material and the function (purpose) of each individual part/component.
The evidence of the other TWO tools or instruments may be in the form of a comprehensive set of pictures and/or photographs together with explanatory labels and notes.
- There must be clear evidence that the research was used.
- Include a list of ALL references (sources).

3. Generate THREE sets of neat detailed self-explanatory freehand drawings that will clearly show THREE different possible improvements, modifications or re-designs to the identified main part(s)/component(s) of the selected tool and/or instrument.

Each set of freehand drawings must consist of relevant self-explanatory orthographic views and an isometric drawing(s) that must show dimensions, labels and explanatory notes, as well as the correct presentation of ALL the features. Include a short narrative explanation of the possible improvement, modification or re-design.

NOTE:

- ALL the features should be drawn proportionally the same size. Grid/Graph paper should therefore be used.
 - These drawings must provide clear evidence that a high level of competency has been attained in freehand drawings as one of the required EGD drawing methods.
 - All the drawings must comply with the *SANS 10111 Guidelines*.
4. Select the best improvement/modification/re-design which demonstrates an in-depth understanding of the design brief within the context of the given requirements and specifications of the task. Create a table and use at least SIX relevant criteria to evaluate and compare the possible design solutions of the THREE freehand drawings.
Include a comprehensive summary of the reasons for the solution selected.

PHASE 2 presentation requirements

5. Present the selected tool or instrument and the selected improvement/modification/re-design as a set of working drawings and a pictorial drawing (5.1, 5.2 and 5.3) that adhere to the following:
- All the drawings must be presented on appropriately sized drawing sheets, correctly set up with borders. Only the first working drawing (5.1) has to be set up with an appropriate and complete mechanical title block.
 - The drawings must provide clear evidence that a high level of competency had been attained in the following TWO required EGD drawing methods:
 - Instrument drawings
 - CAD (Computer-aided Drawing/Design)
- NOTE:**
- ONE working drawing (i.e. 5.1 or 5.2) must be prepared as an instrument drawing and the other using a CAD system.
 - The isometric drawing (5.3) may be prepared either as an instrument drawing or by using a CAD system.
 - Schools that do not have CAD facilities must prepare all the required drawings (5.1, 5.2 and 5.3) as instrument drawings.
- All drawings must comply with the *SANS (SABS) 10111 Guidelines*.
- 5.1 Draw an assembly drawing of the selected tool or instrument clearly showing all the parts before any improvements, modifications or re-designs have been effected. The drawing must show a minimum of FOUR appropriate orthographic views drawn to a suitable scale.

The views must include:

- 5.1.1 The front view
- 5.1.2 A second primary view
- 5.1.3 Any TWO other secondary views

NOTE: TWO of the views must be sectioned or contain types of section.

The following must be included:

- Scale
- Dimensions
- Labels and notes
- Cutting planes
- ALL hatching detail

- 5.2 Draw a detailed drawing of the identified main part(s)/component(s) of the selected tool or instrument, clearly showing the selected improvement/modification/re-design. The drawing must show a minimum of THREE appropriate orthographic views drawn to a suitable scale.

The views must include:

- 5.2.1 The front view
5.2.2 Any TWO other views

NOTE: ONE of the views must be sectioned or contain a type of section.

The following must be included:

- A comprehensive list of explanatory labels and notes
- Relevant welding and/or machining symbols
- Scale
- Dimensions
- Cutting plane(s)
- ALL hatching detail

- 5.3 Draw a detailed isometric drawing of the selected tool or instrument or of the improved, modified or re-designed main part(s)/component(s) of the tool or instrument, to a suitable scale.

Evidence of the following must be shown:

- All views/drawings used to produce the drawing
- The constructions/methods used to produce the drawing

NOTE:

- Include relevant labels and notes.
- A copy of the isometric drawing, which may contain artistic features, should be used as the picture for the cover page of the PAT file/portfolio.

PHASE 3 presentation requirements

Create a PAT file/portfolio containing:

- A complete cover page
- An index
- The 2018 SUMMATIVE ASSESSMENT SHEET (see page 26)
- The completed DECLARATION OF AUTHENTICITY (see page 27)

Present the following Phase 1 and Phase 2 presentation requirements in the PAT file/portfolio after the DECLARATION OF AUTHENTICITY:

1. ALL the design brief requirements
2. The evidence of ALL the relevant resource material used for the required research
3. The THREE freehand drawings of THREE possible design solutions
4. ALL the evidence of the selection of the best solution
5. ALL the required working drawings (5.1 and 5.2) and the pictorial drawing (5.3)
6. Using the included checklist (assessment criteria), clear evidence of continuous self-evaluation of the entire process and of the meeting of all the deadlines during the development of the PAT

NOTE:

Include the following on each page of each presentation requirement:

- Clear numbering according to the numbers of the presentation requirements
- Your (the learner's) name
- The date of completion and submission

Assessment criteria and checklist for the 2018 EGD Mechanical PAT

- The SUMMATIVE ASSESSMENT SHEET on page 26 of the EGD PAT document must be used to indicate the final totals out of 10 for each assessment criterion.
- The contribution of each aspect of the PAT is as follows:
 - The design process, i.e. presentation requirements numbers 1, 2, 3, 4, 6 and 7, will contribute 25 marks to the final PAT mark out of 100
 - The working drawings and a pictorial drawing, i.e. presentation requirement number 5, will contribute 50 marks to the final PAT mark out of 100
 - Drawing methods, drawing skills and presentation, which should be assessed according to ANNEXURE A, will contribute 25 marks to the final PAT mark out of 100.

ASSESSMENT CRITERIA AND CHECKLIST FOR THE 2018 EGD MECHANICAL PAT							
1 mark level descriptive	0	No evidence/not done or not correct/complete/compliant/achieved/very poor			Checked	Suggested mark allocation	Own notes/Comments
	1	All evidence shown/correct/complete/compliant/achieved/clear					
2 mark level descriptive	0	No evidence/not done/very poor			Checked	Suggested mark allocation	Own notes/Comments
	1	Evidence shown but not correct/complete/compliant/achieved/average					
	2	All evidence shown/correct/complete/compliant/achieved/clear/very good					
1 Design Brief							
1.1	Identifying the primary problem and secondary problems in own words				2		
1.2	Formulating of a design brief in own words				2		
1.3	A comprehensive list of the specifications for the selected tool/instrument				2		
1.4	A list of constraints for the selected tool/instrument				2		
1.5	A list of the entire process together with a management plan				2		
TOTAL					10		
2 Research (This should be restricted to a maximum of THREE A4 or TWO A3 pages per research topic)							
Relevant and usable research on:	2.1	Materials used for parts/components of the selected tool/instrument				2	
	2.2	Design features and/or function (purpose) of each individual part				2	
	2.3.1	The design and mechanical movement of another item No. 1				2	
	2.3.2	The design and mechanical movement of another item No. 2				2	
Clear evidence that the research was used						1	
Sources included						1	
TOTAL					10		
3 Freehand drawings of THREE possible design solutions							
Assess each freehand solution as follow:	Relevant orthographic views			2	Final mark for each solution		
	Isometric drawing			2			
	Correct presentation of ALL the features			2	Solution 1	10	
	The relative size of all features and fixtures to each other			2			
	Labels and explanatory notes			2	Solution 2	10	
	Dimensioning			2			
	Narrative of improvement, modification or redesign			2			
Functionality of improvement, modification or redesign			1	Solution 3	10		
Subtotal = 15 ÷ 1,5 = TOTAL			10				
(Use 7-mark rubric on page 45 of the EGD CAPS) (1 = 1 ; 2 = 1 ; 3 = 2 ; 4 = 3 ; 5 = 3 ; 6 = 4 ; 7 = 5 ; 8 = 5 ; 9 = 6 ; 10 = 7 ; 11 = 7 ; 12 = 8 ; 13 = 9 ; 14 = 9 ; 15 = 10)							
4 Selecting the best freehand solution (This must be a separate presentation)							
Appropriate and easily understandable presentation of the selection process						2	
Using the requirements and specifications as criteria for the evaluation						2	
Relevant and comprehensive reasons (evaluating and comparing)						2	
A rating scale to score each solution, i.e. a mark allocation of each criteria						2	
A summary of the reasons for the selected solution(s)						2	
TOTAL					10		
5 Working drawings and a pictorial drawing of selected tool/instrument							
Drawing sheet preparation							
Appropriately sized drawing sheets						1	
Borders on all the drawing sheets of working drawings and pictorial drawing						2	
Appropriate and complete mechanical title block on the first working drawing (5.1)						7	
(Use 7-mark rubric on page 45 of the EGD CAPS)						TOTAL	10
5.1 Assembly drawing of the selected tool/instrument, before any improvements/modifications/redesigns							
5.1.1	Front view before any changes						
	ALL the parts included and drawn correctly according to actual tool/instrument				2		
	All hatching detail or, if not sectioned, ALL external features				2		
	ALL bolts and nuts and other fastening methods correct in ALL FOUR views				2		
	Labels and notes for ALL FOUR views				2		
	Projection symbol				1		
	Suitable scale selected and indicated correctly for ALL FOUR views				1		
TOTAL					10		

ASSESSMENT CRITERIA AND CHECKLIST FOR THE 2018 EGD MECHANICAL PAT			
5.1.2 Second primary (main) view before any changes			
	ALL the parts included and drawn correctly according to the actual tool/instrument		2
	All hatching detail or, if not sectioned, external features		2
	Dimensions for ALL FOUR views		2
	ALL centre lines on ALL FOUR views		2
	ALL FOUR views drawn correctly in third-angle orthographic projection		2
TOTAL			10
5.1.3 TWO other secondary views before any changes			
	Appropriate secondary views selected		2
	ALL the parts included and drawn correctly according to the actual tool/instrument		2
	All hatching detail or, if not sectioned, external features		2
	TWO views sectioned or contain types of section		2
	Correct cutting planes for the TWO sectional views and/or types of sections		2
TOTAL			10
5.2 Detailed drawing of the selected improvement/modification/redesign of the main part(s)/component(s)			
	Appropriate view selected as the front view and is drawn correctly		2
	TWO other relevant views selected and drawn correctly		2
	Improvement/modification/re-design correlates with selected freehand solution		2
	Comprehensive list of explanatory labels and notes		2
	Dimensions		2
	ONE view sectioned , or contain types of section , and drawn correctly		2
	Cutting plane(s)		1
	ALL hatching detail		2
	Relevant welding symbols and/or machining symbols and/or tolerances		2
	Projection symbol		1
	Suitable scale selected and indicated correctly		1
	Drawing is in third-angle orthographic projection		1
Subtotal = 20 ÷ 2 = TOTAL			10
5.3 Detailed isometric drawing			
	Suitable scale selected and indicated correctly		1
	Evidence of views/drawings and construction/method used for the drawing		2
	Isometric drawing/answer (Use 7-mark rubric on page 45 of the EGD CAPS)		7
TOTAL			10
6 Continuous self-evaluation and the meeting of deadlines			
	Checklist(s) of continuous self-evaluation of the entire process (mark out of 10 ÷ 2)		5
	The meeting of ALL the deadlines during the development (mark out of 10 ÷ 2)		5
TOTAL			10
7 Presentation of the complete PAT file/portfolio			
	Cover page		1
	Index		1
	Summative assessment sheet and declaration		1
	Correct sequencing of ALL presentation requirements		1
	Name and numbering on ALL the presentation requirements		1
	General impression of file/portfolio, e.g. binding, appearance etc. (mark out of 10 ÷ 2)		5
TOTAL			10
Assessment of drawing methods, drawing skills and presentation			
a Freehand drawings			
	Freehand drawing methods and skills (See ANNEXURE A on page 23)		10
	Neatness, line work/line quality and printing (See ANNEXURE A on page 23)		10
b Instrument drawings			
	Use of drawing instruments, drawing methods and skills (See ANNEXURE A on page 23)		10
	Neatness, line work/line quality and printing (See ANNEXURE A on page 23)		10
c CAD drawings			
	Competence displayed in using a CAD system/program (See ANNEXURE A on page 23)		10
	Layout and correctness of the drawings presentation (See ANNEXURE A on page 23)		10

8. ANNEXURE A: RUBRIC FOR ASSESSING DRAWING METHODS, DRAWING SKILLS AND PRESENTATION

			LEVELS OF PERFORMANCE										
MARK ALLOCATION			10	9	8	7	6	5	4	3	2	1	0
			100%	99%–90%	89%–80%	79%–70%	69%–60%	59%–50%	49%–40%	39%–30%	29%–20%	19%–1%	0%
Freehand drawings	METHODS AND SKILLS	The drawings display correct freehand drawing methods and skills as well as the method used to ensure good proportion and size	The drawings display excellent drawing methods and skills and the method used to ensure outstanding proportion and size .	The drawings display satisfactory drawing methods and skills and the method used to ensure satisfactory proportion and size .	The drawings display poor drawing methods and skills and there is little to no evidence of the method used which resulted in poor proportion and size .	The drawings display very poor drawing methods and skills and no method was used to ensure correct proportion .							
		Final drawing presentation is neat and there is consistency of line work/line quality, printing and dimensioning	Drawings are very neat and all line work/line quality, printing and dimensioning are outstanding and consistent .	Drawings are neat and line work/line quality, printing and dimensioning are generally good and mostly consistent .	Drawings are untidy with inconsistent line work/line quality, printing and dimensioning .	The line work/line quality, printing and dimensioning are unacceptable .							
Pencil instrument drawings	METHODS AND SKILLS	The drawings display the correct use of drawing instruments, drawing methods and skills .	The drawings display the correct use of drawing instruments and an outstanding application of drawing methods and skills .	The drawings display the correct use of drawing instruments and a satisfactory and mostly correct application of drawing methods and skills .	The drawings display poor use of drawing instruments and a poor and incorrect application of drawing methods and skills .	The drawings display an incorrect use of drawing instruments with incorrect applications of drawing methods and skills .							
		The final drawing presentation is neat and there is consistency of line work/line quality, printing and dimensioning	Drawings are very neat and all line work/line quality, printing and dimensioning are outstanding and consistent .	Drawings are neat and the line work/line quality, printing and dimensioning are generally good and mostly consistent .	Drawings are untidy and the line work/line quality, printing and dimensioning are inconsistent .	The line work/line quality, printing and dimensioning are unacceptable .							
CAD drawings	METHODS AND SKILLS	The level of competence displayed in using a CAD system	Displays a high level of skills, knowledge and ability in using a CAD system	Displays a satisfactory level of skills, knowledge and ability in using a CAD system	Displays a poor level of skills, knowledge and ability in using a CAD system	Shows little to no skills, knowledge or ability in using a CAD system							
		The layout of the final drawing is correct and the line work, printing and dimensioning is compliant and consistent	The layout of the drawings is correct and the line work, printing and dimensioning are compliant and consistent	The layout of the drawings is acceptable and the line work, printing and dimensioning are mostly compliant and consistent	The layout of the drawings is very poor and the line work, printing and dimensioning are not compliant and inconsistent	The layout, line work, printing and dimensioning are unacceptable .							

9. A SIMPLIFIED RUBRIC FOR THE VERIFICATION AND ALLOCATION OF MARKS

NOTE:

- **The final mark out of 10 of each assessment criterion**, i.e. the overall level of achievement according to the presentation requirement, **must be verified according to this rubric.**
- This rubric must also be used to allocate marks for all aspects of the assessment criteria which require a mark out of 10.
- The concept of '**benchmarking**', i.e. the identification of and allocation of marks for the best example(s) for each assessment criterion, should be applied when assessing the PATs.

VERIFICATION AND MARK ALLOCATION			
DESCRIPTION FOR MARK	GENERAL INDICATOR	± %	MARK
ALL/MORE than ALL the REQUIREMENTS are met. - PERFECT -	Error free	100%	10
ALL (ALMOST ALL) the REQUIREMENTS are met. - OUTSTANDING -	Very few errors	90% +	9
ALMOST ALL (MOST OF) the REQUIREMENTS are met. - VERY GOOD -	Few errors	80% +	8
The REQUIREMENTS are met SUBSTANTIALLY . - GOOD -	Some errors	70% +	7
The REQUIREMENTS are met ADEQUATELY . - SATISFACTORY -		60% +	6
The REQUIREMENTS are met MODERATELY . - ACCEPTABLE -	Many errors	50% +	5
ONLY SOME of the REQUIREMENTS are met. - UNACCEPTABLE -		40% +	4
	Mostly wrong	30% + Only a few correct features	3
The REQUIREMENTS are NOT met. - VERY POOR -	Completely wrong	29% and LESS	2
		Something done incorrectly/poorly	1
NOT DONE!	No work handed in!	Nothing to mark!	0

10. PRACTICAL ASSESSMENT TASK 2018: SUMMATIVE ASSESSMENT SHEET

**PRACTICAL ASSESSMENT TASK 2018
SUMMATIVE ASSESSMENT SHEET**

SCHOOL:

NAME OF LEARNER:
(SURNAME AND INITIALS)

EXAMINATION NUMBER:

PART A: Design Process		PART B: Working and pictorial drawings		Drawing competency and skill				
CRITERIA		MARK		CRITERIA		MARK		
1	A design brief demonstrating a clear understanding of the scenario with a list of the specifications and constraints	All drawing sheets are appropriately set up with a border and an appropriate title block/panel.		Freehand drawings ANNEXURE A	METHOD	The drawings display correct freehand drawing methods and skills and the method used to ensure proportion and size		
	2	Evidence of relevant and usable research with the inclusion of a source	View 1 PAT 1: Plan PAT 2: Front view			The final drawing presentation is neat and there is consistency of line work/line quality, printing and dimensioning		
3	THREE freehand drawings of detailed possible solutions	1 st Solution	5.1.1	Orthographic drawings Assess each view's accuracy and correctness according to the selected solution, the stipulated requirements and EGD drawing principals	5.1.2	View 2 PAT 1: Section PAT 2: 2 nd main view		
		2 nd Solution	5.1.3			View 3 PAT 1: 2 elevations PAT 2: 2 secondary views		
		3 rd Solution	5.2			PAT 1: Site plan PAT 2: Detailed drawing		
4	Selecting the final/best solution which demonstrates a clear understanding of the design brief	Pictorial drawing 5.3	The correct drawing method and the presentation of the drawing PAT 1: 2-point perspective PAT 2: Isometric		Pencil instrument drawings: ANNEXURE A	METHOD	The drawings display the correct use of drawing instruments, drawing methods and skills	
6	Clear evidence of continuous self-evaluation and the meeting of deadlines of all the requirements		PAT 1: 2-point perspective PAT 2: Isometric				The final drawing presentation is neat and there is consistency of line work/line quality, printing and dimensioning	
7	The presentation of the complete PAT file/portfolio			CAD drawings ANNEXURE A	METHOD	The level of competence displayed in using a CAD system		
						The layout of the final drawing is correct and the line work, printing and dimensioning is compliant and consistent		
Criteria Total		Criteria Total		TOTAL without CAD				
CALCULATION		CALCULATION		TOTAL with CAD				
Teacher's TOTAL		Teacher's TOTAL		CALCULATION without CAD				
TOTAL: A / 25		TOTAL: B / 50		CALCULATION with CAD				
Moderated TOTAL		Moderated TOTAL		Teacher's TOTAL				
TOTAL: A / 25		TOTAL: B / 50		TOTAL: C / 25				
TEACHER'S TOTAL:		A + B + C =				/ 100		
MODERATED TOTAL:		A + B + C =				/ 100		
				ASSESSOR: Initial		MODERATOR: Initial		

11. DECLARATION OF AUTHENTICITY

DECLARATION OF AUTHENTICITY

To be submitted with each learner's practical assessment task portfolio

NAME OF THE SCHOOL:

NAME OF LEARNER:
(SURNAME AND INITIALS)

EXAMINATION NUMBER:

I hereby declare that all the contents of the practical assessment task submitted by myself for assessment is my own original work and has not been plagiarised, copied from someone else or previously submitted for assessment.

SIGNATURE OF CANDIDATE

DATE / / 2018
(DD/MM/YYYY)

NAME OF TEACHER:
(SURNAME AND INITIALS)

As far as I know, the above declaration by the candidate is true and I accept that the PAT offered is his/her own work.

SIGNATURE OF TEACHER

DATE / / 2018
(DD/MM/YYYY)

