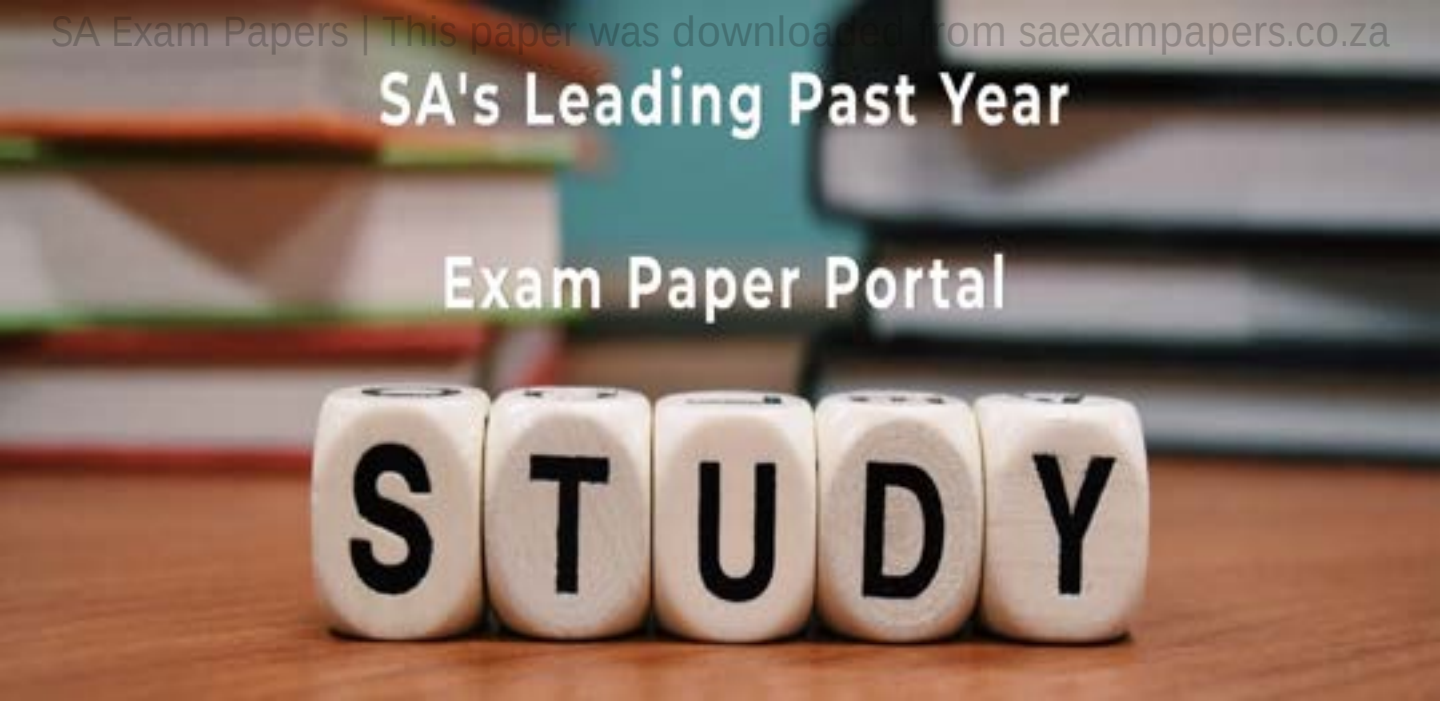


ADDENDUM

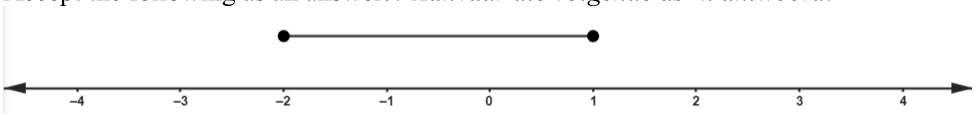
TECHNICAL MATHEMATICS/TEGNIESE WISKUNDE

Prelimanary Examination / Voorbereidende Eksamen

Paper / Vraestel 1 September 2023

FINAL MARKING GUIDELINES (ADDITIONAL NOTES)

FINALE NASIENRIGL YNE (ADDISIONELE NOTAS)

ITEM	DESCRIPTION/BESKRWING
	NPU and NPR is valid for all questions where applicable / *NPU en NPR is geldig op alle vrae waar van toepassing.*
1.1.2	After factorizing, the bracket has to be a quadratic expression in order to CA the answer. *Nadat daar gefaktoriseer is, moet die uitdruikking in die hakkie kwadraties wees om die CA vir die antwoorde te doen.*
1.1.4	Accept the following as an answer: / *Aanvaar die volgende as 'n antwoord:* 
3.1.2	$\bar{z}_T = -2 + i$ It the learner changed the -2 to 2 and kept $-i$ then the learner gets 0 for the answer. *Indien die leerder die -2 na 2 toe verander het en die $-i$ gehou het, kry die leerder 0 vir die antwoord.*
4.1.3	No penalty if the calculation is not shown/ indicated. *Geen straf as die bewerking nie gewys word nie.*
5.5	Only **ONE** point if intersection. *Slegs **EEN** punt waar hulle sny.*
6.2.1	Accept the following due to an error on the information sheet: *Aanvaar die volgende as gevolg van 'n fout op die inligtingsblad.* $A = P(1+i)^2$ ✓ F A $= 3\,400\left(1+\frac{0{,}092}{365}\right)^2$ ✓ SF A $= R3\,401{,}71$ ✓ $\frac{0{,}092}{365}$ A $= R3\,402$ ✓ R3 402 CA **OR / OF** $A = P(1+i)^2$ ✓ F A $= 3\,400\left(1+\frac{0{,}092}{2}\right)^2$ ✓ SF A $= 3\,719{,}9944$ ✓ $\frac{0{,}092}{2}$ A $= R3\,720$ ✓ R3 402 CA (4)
6.3	Accept the following due to an error on the information sheet: *Aanvaar die volgende as gevolg van 'n fout op die inligtingsblad.* $A = P(1+I)^2$ $= 20\,000\left(1+\frac{0{,}125}{12}\right)^2$ ✓ $\frac{0{,}125}{12}$ A $= 20\,418{,}836$ ✓ 20 418,836 CA

	$A = P(1+i)^2$	✓ SF	CA
	$= 20\,418{,}836\left(1+\frac{0{,}098}{4}\right)^2$	✓ $\frac{0{,}098}{4}$	A
	$= \text{R}21\,431{,}62$	✓ 21 431,62	CA
	OR/*OF*		
	$A = 20\,000\left(1+\frac{\frac{12{,}5}{100}}{12}\right)^2 . \left(1+\frac{\frac{9{,}8}{100}}{4}\right)^2$	✓ $\frac{0{,}125}{12}$	A
	$A = R21\,431{,}62$	✓ M	A
		✓ $\frac{\frac{9{,}8}{100}}{4}$	A
		✓ M	A
		✓ 21 431,62	CA
	OR / OF		
	$A = P(1+I)^2$		
	$= 20\,000\left(1+\frac{0{,}125}{2}\right)^2$	✓ $\frac{0{,}125}{2}$	A
	$= 22\,578{,}125$	✓ 22 578,125	CA
	$A = P(1+i)^2$	✓ SF	CA
	$= 20\,418{,}836\left(1+\frac{0{,}098}{2}\right)^2$	✓ $\frac{0{,}098}{2}$	A
	$= \text{R}24\,844{,}99$	✓ 24 844,99	CA
	OR/*OF*		
	$A = 20\,000\left(1+\frac{\frac{12{,}5}{100}}{2}\right)^2 . \left(1+\frac{\frac{9{,}8}{100}}{2}\right)^2$	✓ $\frac{0{,}125}{2}$ A ✓ M	A
	$A = \text{R}24\,844{,}99$	✓ $\frac{\frac{9{,}8}{100}}{2}$	A
		✓ M	A
		✓ 24 844,99	CA
7.1	When marking first principles, as soon as a learner makes a second mistake, you stop marking and do not allocate any further marks. **ONLY in Question 7.1.** *Wanneer ons eerste beginsels merk, hou ons op merk sodra die leerder 'n tweede fout maak en dus gee ons nie verder punte nie.* ***SLEGS in Vraaf 7.1.***		
7.4	If the learner only writes $x = \frac{3}{2}$, you may award full marks. *Indien die leerder slegs $x = \frac{3}{2}$ skryf, mag jy volpunte toeken.*		
10.1.2	✓ $-8lnx + c$ If a learner omits the c in this question, **DO NOT** penalise the learner. *Indien die leerder die c weglaat in hierdie vraag,* ***MOET*** *die leerder* ***NIE*** *gepenaliseer word* ***NIE***.		

DATE APPROVED/DATUM GOEDGEKEUR		8 SEPTEMBER 2023	
EXTERNAL/EKSTERNE MODERATORS/E		INTERNAL /INTERNE MODERATORS/E	
Name	Signature	Name	Signature
		HJ Swart	