THE PRIME MOCK EXAMINATIONS 2024 P.7 MATHEMATICS MARKING GUIDE

NO	SOLUTION	MA	COMMEN	NO NO	MARKS) SOLUTION			COMMEN	
1	64	RKS	T			- 1	KS	T	-
	+ 24	B ₂	Follow through	2	19037= Nineteen thousand thin Seven.		M ₁ A ₁	Follow through	
3	n(n+1)	M ₁	Patt				A.F	PII	-11
-	2	M ₁ A ₁	Follow through	4	$Y = \{1, 2, 4, 8\}$ No of subsets = 2^n		M ₁ A ₁	Follow through	
1	6(6+1)	3			= 24				-
	2	110	MARKET WAR		= 2 x 2 x 2 x 2 = 16	Figure		The state of	
	3 (7) = 21	1 3 7 1 1 1						1200	
	9. 076 x 10 ⁻³					43		F 11	
	The state of the s	M ₁ A ₁	Follow through	6	Hrs Mins 11 40 am 9	0	M ₁ A ₁	Follow throug	
			Jugit		11 40 am 90 + 6 50 -6		1	1	
		SUS FIRE			18 30hrs 3			1	
7	The state of the s				K=4.1-2.M-2		M ₁		
	1		The state of the s	8	K= 4, L=3, M=2 KL -M		A ₁	Follov	
	P/				(4 x 3)-2		1	throu	gh
1	/	-			12-2 10		1	19 30	1
-	./ ~	3/	150 115 115		The state of the s		BEE	1000	1200
	X	*	Devil 1				1	70 M	1
1	//	1	11 13 17 18 19		Part of the same o		1	-	81.
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ME S	1550	The House of						A 10000	
	A550							4	
	0 1588	R	-						
	g = 1000gm	R	Follow	10	T N D 1	NBKS	M		low
9 Ikg	g = 1000gm		Follow through	10		NBKS 18-2	M. A.		low ough
100	⁵⁶ ₀₀ x 1000 gm	M ₁		10					
100	g = 1000gm $\frac{56}{00}$ x 1000gm $\frac{66}{00}$ gm	M ₁		10	18 7 5	18-2			
100	⁵⁶ ₀₀ x 1000 gm	M ₁		10		18-2			
25	⁵⁶ ₀₀ x 1000 gm	M ₁ A ₁	through		$\begin{array}{ c c c c c }\hline 18 & 7 & 5 \\ \hline Prob & = \frac{6}{18} \\ \hline \end{array}$	6	A	thr	ough
25	⁵⁶ ₀₀ x 1000 gm	M ₁ A ₂	through Follow	10		18-2 6	A	three	ough
25	= 2 rem 8	M ₁ A ₁	through		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	18-2 6 3x5	A	three	ough
$\frac{25}{100}$ 25	56 ₀₀ x 1000 gm 56gm	M ₁ A ₂	through Follow			18-2 6 3x5	A	three	ough
$\frac{25}{100}$ 25	= 2 rem 8	M ₁ A ₂	through Follow			18-2 6 3x5 5	A	three	ough
$\frac{25}{100}$ 25	= 2 rem 8	M ₁ A ₂	through Follow			18-2 6 3x5 5	A	three	ough
$\frac{25}{100}$ 25	= 2 rem 8	M ₁ A ₂	through Follow			18-2 6 3x5 5	A	three	ough
$\frac{\frac{25}{100}}{25}$	= 2 rem 8	M ₁ A ₂	through Follow		$ \begin{array}{c cccccccccccccccccccccccccccccccc$	18-2 6 3x5 5	A	three	ough
$\frac{25}{100}$ 25 $\frac{25}{100}$	56 au 1000 gm 56 gm = 2 rem 8 = 8 finite 9	M ₁ A ₁ M ₁ A ₁	Follow through	12	$ \begin{array}{c cccccccccccccccccccccccccccccccc$	18-2 6 3x5 5	A	three Mi Fo	ough ollow rrough
25 100 25 26 26 26	56 au 1000 gm 56 gm = 2 rem 8 = 8 finite 9	M ₁ A ₁ M ₁ A ₁ M ₁ A ₁	Follow Follow		$ \begin{array}{c cccccccccccccccccccccccccccccccc$	18-2 6 3x5 5	A	three M1 Fo A1 th	ough ollow rough
25 100 25 26 9 26	= 2 rem 8 = 8 finite 9	M ₁ A ₁ M ₁ A ₁ M ₁ A ₁	Follow through	12	$ \begin{array}{c cccccccccccccccccccccccccccccccc$	18-2 6 3x5 5	A	three M1 Fo A1 th	ough ollow rrough
25 100 25 26 9 26	= 2 rem 8 = 8 finite 9	M ₁ A ₁ M ₁ A ₁ M ₁ A ₁	Follow Follow	12	$ \begin{array}{c cccccccccccccccccccccccccccccccc$	18-2 6 3x5 5	A	three M1 Fo A1 th	ough ollow rough
25 100 25 26 9 26 9 26 9 26 9 28 x	$\frac{36}{00} \times \frac{1000}{9} \text{ m}$ $\frac{36}{600} \times \frac{1000}{9} \text{ m}$ $\frac{3}{2} \times \frac{2}{3} \times \frac{3}{2} \times \frac$	M ₁ A ₁ M ₁ A ₁ M ₁ A ₁	Follow Follow	12	$ \begin{array}{c cccccccccccccccccccccccccccccccc$	18-2 6 3x5 5	A	three M1 Fo A1 th	ough ollow rough
$\frac{25}{100}$ 25 $\frac{26}{9}$ 26	$\frac{66}{000} \times \frac{1000}{9} \text{ m}$ $\frac{66}{600} \times \frac{1000}{9} \times \frac{1000}{9} \times \frac{1000}{9} \text{ m}$ $\frac{66}{600} \times \frac{1000}{9} \times $	M ₁ A ₁ M ₁ A ₁ M ₁ A ₁	Follow Follow	12	$ \begin{array}{c cccccccccccccccccccccccccccccccc$	18-2 6 3x5 5	A	three M1 Fo A1 th	ough ollow rough

15 Sh 55000 + sh 8500 = Sh 63500	Follow through	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Follow through
$ \begin{array}{ c c c c c } \hline 17 & C & G & TR \\ \hline 3 & 5 & 8 \\ \hline 600 & \\ \hline \frac{120}{5_1} \times 3 \\ \hline 120 \times 3 \\ =360 \end{array} $	Follow through	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		Follow through
19 $M = \frac{SOi}{NO}$ $7 = \frac{X+2+9+10+4+X}{5}$ 35 = 2X+25 $\frac{35-25=2X+25-25}{\frac{10}{5}=\frac{2X}{4}}$ 5 = X $\therefore X = 5$	Follow through	$ \begin{array}{c c} 20 & \frac{90}{1000} \div \frac{1}{3600} km/hr \\ & \frac{90}{1000} \times \frac{3600}{1} \\ & 9 \times 36 \\ & = 324km/h \end{array} $		Follow through
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	SECTIO	N B (60 marks)		
47-15 15 2r-3		22 (a) 103 _{five} to base three 103 _{five} (2x5 ²) + (0x5 ¹) + (3x5 ⁰) (2x5x5) + (0x5) + (3x1) 50 + 0 + 3 53 _{ten}	B ₁	Follow through
(b) 47-15+15+2r-3+6 = 86	2	3 53 2	M ₁	

		0
(b) 47-15+15+	2r-3+6 = 86	
47+3+2r 59+2r	= 86	
2r	= 86 = 86-50	
$\frac{1}{2r}$	18 36	
r	$=\frac{-}{2_1}$ $=18$	O.F.

(2)	03 _{five} (x5 ²) (x5x5 50	+ (0x51 5) + (0x5 + 0) + (3x5°) 5) + (3x1)		B_1	Follow through
3 3	17				M ₁	
12	22 _{thr}	ee			A1	
	$(3x)$ $(2x)$ $3x^{2}$ $50+$ $3x^{2}$ $3x^{2}$ $3x^{2}$ $3x^{2}$ $3x^{2}$ $3x^{2}$ $3x^{2}$	$(x^2) + (0^2)^2 + (0^2)^2 + (0^2)^2 + (0^2)^2$	$ (2 \times x^{1}) + (3 \times x^{2}) + (0 \times x^{2$	(0)	M ₁	
	3 3 3 3 12 (b)	103five (2x52) (2x5x5 50 53te) 3 53 3 17 3 5 1 1222thi (b) 30 (3x (2x 3x ² 50+	103 five $(2x5^{2}) + (0x5^{1})$ $(2x5x5) + (0x5^{1})$ $50 + 0$ 53_{ten} $3 $	$(2x5^{2}) + (0x5^{1}) + (3x5^{0})$ $(2x5x5) + (0x5) + (3x1)$ $50 + 0 + 3$ 53_{ten} $\frac{3}{53} \frac{2}{2}$ $\frac{3}{17} \frac{7}{2}$ $\frac{3}{5} \frac{5}{2}$ 1 1222_{three} $(b) 302x = 200_{five}$ $(3x^{2}) + (0x^{1}) + (3x^{2})$ $(2x5^{2}) + (0x5^{1}) + (0x5^{2})$ $3x^{2} + 0 + 2 = 50 + 6$ $3x^{2} = 50 - 2$ $\frac{3}{3}x^{2} = \frac{48}{3}$ $\frac{3}{31}$ $\sqrt{x^{2}} = \sqrt{16}$	$ \begin{array}{c} 103_{five} \\ (2x5^2) + (0x5^1) + (3x5^0) \\ (2x5x5) + (0x5) + (3x1) \\ 50 + 0 + 3 \\ \hline 3 53 2 \\ \hline 3 17 2 \\ \hline 3 5 2 \hline 1 1222_{three} $ $ (b) 302x = 200_{five} \\ (3xx^2) + (0xx^1) + (3xx^0) = \\ (2x5^2) + (0x5^1) + (0x5^0) \\ 3x^2 + 0 + 2 = 50 + 0 + 0 \\ 50 + 2r = 50 \\ \hline 3x^2 = 50 - 2 \\ \frac{1}{3}x^2 = \frac{16}{3} \\ \hline \sqrt{x^2} = \sqrt{16} \end{array} $	103 _{five} $(2x5^{2}) + (0x5^{1}) + (3x5^{0})$ $(2x5x5) + (0x5) + (3x1)$ $50 + 0 + 3$ 53_{ten} 3 53 2 3 17 2 3 5 2 1 12222three (b) 302x = 200 _{five} $(3x x^{2}) + (0x x^{1}) + (3x x^{0}) = (2x5^{2}) + (0x5^{1}) + (0x5^{0})$ $3x^{2} + 0 + 2 = 50 + 0 + 0$ $50 + 2r = 50$ $3x^{2} = 50 - 2$ $\frac{1}{3}x^{2} = \frac{16}{3}$ $31 \sqrt{x^{2}} = \sqrt{16}$

Sugar	12 1	7	
Sh 3800x3 Sh 11400	Posho flour 5 x sh 2000 Sh 2500	Cooking oil 500 1000 x 7500 Sh 3750	Blue band Sh 6500

(a) <u>T.E</u> Sh 11400+ sh2500 + sh3750 + sh6500 = Sh 24150

			10 m			
(b) Sh 30000-sh 24 Sh 5850	150				3	
24 (a) $M_3 = \{3, 6, 9, 12, 1\}$ Sum of digits give $4+8+9$	5 10 0		TAN AND		1	
3um of digits give 4 + 8 + 9	n 18, 21, 2	4, 27, 30)				
21 $21 + m = 21$						
$\begin{array}{ccc} m & = 21 - 21 \\ m & = 0 \end{array}$						
2 20 25	1 2					
2 10 25 2 5 25 5 1 5	1 4430	2x5x5				
The state of the s	200 m	ins				
1 1	Marie In					
25	0	MARK 198				
	7"					
P 135° 61	-					
1 Sam op						
	~ 1	,				
	3	90cm		0/		
	1			*		
6.2/	/ \	1	-/			
		X	1/3			
-6		185				
/P	Sim	1 10	7			
Qs = 5.	8cm					
26 (a) 3:30pm> 15:30 hr	's I	Follow	Train and the second			
	B_1	through	27	(a) P= 6cm + 8cm		Follow
(b) 10:00 -04:00		3"		P= 14cm		through
6:00 hrs	M_1		liii .	(b) 2x+13 = 3x+5		
$= \frac{\frac{6^3}{2_1}}{\frac{1}{2_1}}$				13-5 = 3x-2x $8 = x$		
The state of the s	A			X = 8	B1 .	
= 3x 2 = 6 patients	A ₁			3x = (3x8cm)		
= 6 patients			開	= 24cm	B_1	
(c) 11:00	M_1			(c) A = (LxW) + (LxW)	M ₁	
-05:00				A = (24cmx8cm) + (14cmx5cm)	l'A1	
6:00	A ₁			$A = 192 \text{cm}^2 + 70 \text{cm}^2$	A ₁	
= 6 hours				$A = 262 \text{ cm}^2$		
B Eng Rem Mtc	Etm 1 1	Others 2 1				
$\begin{vmatrix} \frac{1}{3} & \frac{3}{3} - \frac{1}{3} & \frac{1}{4} \frac{2}{4} \end{vmatrix}$	3 6	$\frac{2}{2} \cdot \frac{1}{2}$				
10 AND REPORT OF THE PARTY OF T	2+1	1				
$\frac{1}{2}$	6	2				
	13 62					
$\frac{1}{6}$						
	$\frac{1}{2}$					
1.						
(b) $(210 \div \frac{1}{2})$ 210×2		A PROPERTY.				
210 x 2						
= 420 books		CV MATU	ENANTICS	MARKING GUIDE 2024 Page	3	

47	(u) 180°-530	1		Name and Address of the Owner, where			
	= 1270	B,	Follow	30	(a)(4x4)+(2x4)+(2x4)		
	1800 - (550 + 1270)	•	i R		16 + 8 + 8 16+16	M1	Follow
	= 280				$\frac{32 cubes}{(b) (4 \times 4 \times 4)}$	A_I	
	250 + 280 = 520				64 cubes 64 - 32	M1	
	(b) 530 + 530 1060	M ₁			32 cubes (c) (16 x 8)	A1	
31	(a) D m 25 + m (m+10) (25+m+10)	M1	Follow through	32	(a) 54+27 81 mangoes	B ₁	Follow
	2(m+10) = 35 + m 2m+20 = 35+m	M1			(b) 162 - 135 27 mangoes	Aı	
	2m-m = 35-20				seo	M1	
	m = 15	A1			$= \frac{\frac{168}{2} \times sh \ 700}{\frac{2}{1} \times sh \ 700} $ A ₁		
	(b) Scimila Total	-			= Sh 37800		
		lu lu					