

PART A: MULTIPLE CHOICE (10 MARKS)

1	2	3	4	5	6	7	8	9	10
b	d	b	a	d	c	b	c	a	a

PART B: MATCH (5 MARKS)

1	2	3	4	5
I	F	C	H	D

PART C: SHORT ANSWER (25 MARKS)

Answer the following questions in the space provided.

- {5} 1. Use the following chart to convert each measurement below into the given units.

A	1.0 cm	0.00001	km
B	720 cm	7200	mm
C	0.093 km	9300	cm
D	5.0 m ²	5.0 × 10 ⁶	mm ²
E	18.0 m ³	1.8 × 10 ⁷	cm ³

Factor	Prefix	Symbol
10 ⁹	giga	G
10 ⁶	mega	M
10 ³	kilo	k
10 ²	hecto	h
10 ¹	deka	da
10 ⁰	-----	-----
10 ⁻¹	deci	d
10 ⁻²	centi	c
10 ⁻³	milli	m
10 ⁻⁶	micro	μ
10 ⁻⁹	nano	n

DON'T FORGET!!

k ↔ M ↔ G & m ↔ μ ↔ n represent steps of 3

- {10} 2. ① Indicate the precision and the # of significant digits of the following measurements in the space provided.
 ② Round off the measurements to the correct number of digits needed.
 ③ Express these rounded measurements in proper scientific notation in the last column. See example.

	MEASUREMENT	PRECISION	# OF SIG. DIG.		MEASUREMENT ROUNDED OFF	MEASUREMENT IN SCI. NOT.
			NOW	NEEDED		
	63.479 m (example)	3	5	3	63.5 m	6.35 × 10 ¹ m
A	0.004 659 m	6	4	2	0.0047 m	4.7 × 10 ⁻³ m
B	5 803 L	0	4	1	6000 L	6 × 10 ³ L
C	565 g	0	3	2	560 g	5.6 × 10 ² g
D	123 456.7 mm	1	7	3	123000 mm	1.23 × 10 ⁵ mm
E	2.074 MW	3	4	3	2.07 MW	2.07 × 10 ⁰ MW

- {10} 3. Perform the following operations, expressing the answers to the correct accuracy/precision including units.

A	12 cm + 0.031 cm + 7.969 cm	20	20 cm
B	(6.1 m)(8.2 m)(1.1 m)	55.022	55 m ³
C	(14 × 10 ⁻⁸ cm ²) ÷ (3.25 × 10 ⁻⁶ cm)	0.043076...	0.043 cm
E	$\sqrt[3]{0.189 \text{ m}^3}$	0.5738...	0.574 m
G	$\frac{(282 \text{ g})(5.98 \times 10^8 \text{ mm})(4.0 \text{ cm})}{(7.5 \times 10^7 \text{ cm})(2.62 \times 10^2 \text{ g})}$	34.32...	34 mm