

PART A: MULTIPLE CHOICE (10 MARKS)

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

PART B: MATCH (5 MARKS)

1	2	3	4	5
F	I	J	C	E

PART C: SHORT ANSWER (25 MARKS)

Use the periodic table in your textbook to answer the following questions. Place your answers in the space provided. If more space is needed, use the back of this sheet.

- {2} 1. Examine the following: $\text{hydrocarbon} + \text{oxygen} \rightarrow \text{carbon dioxide} + \text{water}$
- (a) List one product: carbon dioxide ✓
(or water)
- (b) List one reactant: hydrocarbon ✓
(or oxygen)
- {2} 2. What colour background do the following possess?
- (a) metals green ✓
- (b) metalloids purple ✓
- {2} 3. In what column are the following located?
- (a) noble gases 18 ✓
- (b) alkali metals 1 ✓
- {2} 4. Name two elements that are liquid at room temperature.
* blue letters
- ① bromine ✓
- ② mercury ✓
- {1} 5. What is the atomic number of the element gold (Au)? 79 ✓
- {1} 6. What is the symbol of the element with atomic number 33? As ✓
- {1} 7. What is the atomic mass of the element aluminum (Al)? 27.0 ✓
- {1} 8. What is the chemical symbol of the element with atomic mass 40.1? Ca ✓
- {1} 9. What is the name of the element with the lowest melting temperature? helium ✓
- {1} 10. What is the name of the element with the greatest density? osmium ✓
- {4} 11. Over the centuries, what 4 general types of materials have people used to make everything they need?
- ① metals ✓
- ② polymers ✓
- ③ ceramics ✓
- ④ composites ✓
- {2} 12. In the space given to the right draw a B-R diagram for the element nitrogen.
- {1} (a) What is the symbol of the noble gas that has the closest atomic #? Ne ✓
- {1} (b) Does nitrogen need to lose or gain e's to form a stable ion? gain ✓
- {1} (c) How many e's must nitrogen lose or gain to form a stable ion? 3 ✓
- {2} (d) What charge (sign and number) of ion will result? 3- ✓

$^{14}_7\text{N}$

