



Cambridge Chemistry Challenge Lower 6th

December 2024 Student Answer Booklet

Student name _____

School _____

Account Number _____

Date of exam _____

	p2	p3	p4	p5	p6	p7	Total
mark	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

1(a) (i)

A

B

1

C

D

1

(ii)

1

1(b)

(i)

(ii)

2

(iii)

(iv)

2

1(c)

1

1(d)

(i)

(ii)

2

(iii)

(iv)

2

1(e)

(i) number
formula

(ii) number
formula

2

(iii) number
formula

1

1(f)

(i) number

(ii) formula

2

3

1(g)

(i)

2

(ii) number

2

1(h) (i)

E	H
----------	----------

2

F	I
----------	----------

2

G	J
----------	----------

2

1(h)

(ii)

K

L

2

1(h)

(iii)

M

number

2

1(h)

(iv)

N

O

2

P

Q

2

R

1

2(a) (i)

1

2(a) (ii)

1

2(a) (iii)

1

2(a) (iv)

1

2(b)

|

2

2(c) (i)

2

2(c) (ii)

1

2(c) (iii)

1

2(d) (i)

1

2(d) (ii)

2

2(d) (iii)

1

2(e) (i)

(ii)

1

(iii)

(iv)

1

2(f) (i)

1

2(f) (ii)

1

2(f) (iii) (i)

(ii)

1

(iii)

(iv)

1

2(g) (i)

3

2(g) (ii)

1

2(g) (iii)

1

2(h)

2

18
He
2
4.003
13 14 15 16 17
p-block

Group Number

Symbol
atomic number
mean atomic mass

1 2
s-block
H He
1 2
1.008 4.003
Period 1

B 5 10.81	C 6 12.01	N 7 14.01	O 8 16.00	F 9 19.00	Ne 10 20.18
Al 13 26.98	Si 14 28.09	P 15 30.97	S 16 32.06	Cl 17 35.45	Ar 18 39.95
Ga 31 69.72	Ge 32 72.63	As 33 74.92	Se 34 78.97	Br 35 79.90	Kr 36 83.80
In 49 114.82	Sn 50 118.71	Sb 51 121.76	Te 52 127.60	I 53 126.90	Xe 54 131.29
Tl 81 204.38	Pb 82 207.2	Bi 83 208.98	Po 84	At 85	Rn 86
Nh 113	Fl 114	Mc 115	Lv 116	Ts 117	Og 118

Sc 21 44.96	Ti 22 47.87	V 23 50.94	Cr 24 52.00	Mn 25 54.94	Fe 26 55.85	Co 27 58.93	Ni 28 58.69	Cu 29 63.55	Zn 30 65.38
Y 39 88.91	Zr 40 91.22	Nb 41 92.91	Mo 42 95.95	Tc 43	Ru 44 101.07	Rh 45 102.91	Pd 46 106.42	Ag 47 107.87	Cd 48 112.41
Lu 71 174.97	Hf 72 178.49	Ta 73 180.95	W 74 183.84	Re 75 186.21	Os 76 190.23	Ir 77 192.22	Pt 78 195.08	Au 79 196.97	Hg 80 200.59
Lr 103	Rf 104	Db 105	Sg 106	Bh 107	Hs 108	Mt 109	Ds 110	Rg 111	Cn 112

f-block

La 57 138.91	Ce 58 140.12	Pr 59 140.91	Nd 60 144.24	Pm 61	Sm 62 150.36	Eu 63 151.96	Gd 64 157.25	Tb 65 158.93	Dy 66 162.50	Ho 67 164.93	Er 68 167.26	Tm 69 168.93	Yb 70 173.05
Ac 89	Th 90 232.04	Pa 91 231.04	U 92 238.03	Np 93	Pu 94 244.06	Am 95 243.06	Cm 96 247.07	Bk 97 247.07	Cf 98 251.08	Es 99 252.08	Fm 100 257.10	Md 101 258.10	No 102 259.10

* Lanthanoids:

+ Actinoids:

The Avogadro constant $N_A = 6.022 \times 10^{23} \text{ mol}^{-1}$