

Modified Enlarged 24 pt

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Thursday 19 May 2022 – Morning

Level 3 Cambridge Technical in Applied Science

05847/05848/05849/05874/05879

Unit 1: Science fundamentals

Periodic Table

You must have:

the Data Sheet

a ruler (cm/mm)

Model for Question 2(b)

the Loose Sheet for Question 7(d) FIG. 7.1

You can use:

a scientific or graphical calculator

an HB pencil

The Periodic Table of the Elements

(1) (2)

1

1
H
hydrogen
1.0

2

3
Li
lithium
6.9

4
Be
beryllium
9.0

11
Na
sodium
23.0

12
Mg
magnesium
24.3

19
K
potassium
39.1

20
Ca
calcium
40.1

37
Rb
rubidium
85.5

38
Sr
strontium
87.6

55
Cs
caesium
132.9

56
Ba
barium
137.3

87
Fr
francium

88
Ra
radium

Key

atomic number

Symbol

name

relative atomic mass

3

21
Sc
scandium
45.0

39
Y
yttrium
88.9

57–71
lanthanoids

89–103
actinoids

4

22
Ti
titanium
47.9

40
Zr
zirconium
91.2

72
Hf
hafnium
178.5

73
Ta
tantalum
180.9

104
Rf
rutherfordium

5

23
V
vanadium
50.9

41
Nb
niobium
92.9

74
W
tungsten
183.8

105
Db
dubnium

6

24
Cr
chromium
52.0

42
Mo
molybdenum
95.9

106
Sg
seaborgium

7

25
Mn
manganese
54.9

43
Tc
technetium

75
Re
rhenium
186.2

107
Bh
bohrium

8

26
Fe
iron
55.8

44
Ru
ruthenium
101.1

76
Os
osmium
190.2

108
Hs
hassium

9

27
Co
cobalt
58.9

45
Rh
rhodium
102.9

77
Ir
iridium
192.2

109
Mt
meitnerium

10

28
Ni
nickel
58.7

46
Pd
palladium
106.4

78
Pt
platinum
195.1

110
Ds
darmstadtium

11

29
Cu
copper
63.5

47
Ag
silver
107.9

79
Au
gold
197.0

111
Rg
roentgenium

12

30
Zn
zinc
65.4

48
Cd
cadmium
112.4

80
Hg
mercury
200.6

112
Cn
copernicium

13

5
B
boron
10.8

13
Al
aluminium
27.0

14

6
C
carbon
12.0

14
Si
silicon
28.1

50
Sn
tin
118.7

82
Pb
lead
207.2

15

7
N
nitrogen
14.0

15
P
phosphorus
31.0

16

8
O
oxygen
16.0

16
S
sulfur
32.1

52
Te
tellurium
127.6

84
Po
polonium

17

9
F
fluorine
19.0

17
Cl
chlorine
35.5

18

10
Ne
neon
20.2

18
Ar
argon
39.9

54
Xe
xenon
131.3

86
Rn
radon

57
La
lanthanum
138.9

89
Ac
actinium

58
Ce
cerium
140.1

90
Th
thorium
232.0

59
Pr
praseodymium
140.9

91
Pa
protactinium

60
Nd
neodymium
144.2

92
U
uranium
238.1

61
Pm
promethium
144.9

93
Np
neptunium

62
Sm
samarium
150.4

94
Pu
plutonium

63
Eu
europium
152.0

95
Am
americium

64
Gd
gadolinium
157.2

96
Cm
curium

65
Tb
terbium
158.9

97
Bk
berkelium

66
Dy
dysprosium
162.5

98
Cf
californium

67
Ho
holmium
164.9

99
Es
einsteinium

68
Er
erbium
167.3

100
Fm
fermium

69
Tm
thulium
168.9

101
Md
mendelevium

70
Yb
ytterbium
173.0

102
No
nobelium

71
Lu
lutetium
175.0

103
Lr
lawrencium

ELEMENTS LISTED IN NUMERICAL ORDER:

1	Hydrogen	H	35	Bromine	Br
2	Helium	He	36	Krypton	Kr
3	Lithium	Li	37	Rubidium	Rb
4	Beryllium	Be	38	Strontium	Sr
5	Boron	B	39	Yttrium	Y
6	Carbon	C	40	Zirconium	Zr
7	Nitrogen	N	41	Niobium	Nb
8	Oxygen	O	42	Molybdenum	Mo
9	Fluorine	F	43	Technetium	Tc
10	Neon	Ne	44	Ruthenium	Ru
11	Sodium	Na	45	Rhodium	Rh
12	Magnesium	Mg	46	Palladium	Pd
13	Aluminium	Al	47	Silver	Ag
14	Silicon	Si	48	Cadmium	Cd
15	Phosphorus	P	49	Indium	In
16	Sulfur	S	50	Tin	Sn
17	Chlorine	Cl	51	Antimony	Sb
18	Argon	Ar	52	Tellurium	Te
19	Potassium	K	53	Iodine	I
20	Calcium	Ca	54	Xenon	Xe
21	Scandium	Sc	55	Caesium	Cs
22	Titanium	Ti	56	Barium	Ba
23	Vanadium	V	57	Lanthanum	La
24	Chromium	Cr	58	Cerium	Ce
25	Manganese	Mn	59	Praseodymium	Pr
26	Iron	Fe	60	Neodymium	Nd
27	Cobalt	Co	61	Promethium	Pm
28	Nickel	Ni	62	Samarium	Sm
29	Copper	Cu	63	Europium	Eu
30	Zinc	Zn	64	Gadolinium	Gd
31	Gallium	Ga	65	Terbium	Tb
32	Germanium	Ge	66	Dysprosium	Dy
33	Arsenic	As	67	Holmium	Ho
34	Selenium	Se	68	Erbium	Er

69	Thulium	Tm
70	Ytterbium	Yb
71	Lutetium	Lu
72	Hafnium	Hf
73	Tantalum	Ta
74	Tungsten	W
75	Rhenium	Re
76	Osmium	Os
77	Iridium	Ir
78	Platinum	Pt
79	Gold	Au
80	Mercury	Hg
81	Thallium	Tl
82	Lead	Pb
83	Bismuth	Bi
84	Polonium	Po
85	Astatine	At
86	Radon	Rn
87	Francium	Fr
88	Radium	Ra
89	Actinium	Ac
90	Thorium	Th
91	Protactinium	Pa
92	Uranium	U
93	Neptunium	Np
94	Plutonium	Pu
95	Americium	Am
96	Curium	Cm
97	Berkelium	Bk
98	Californium	Cf
99	Einsteinium	Es
100	Fermium	Fm
101	Mendelevium	Md
102	Nobelium	No
103	Lawrencium	Lr
104	Rutherfordium	Rf

105	Dubnium	Db
106	Seaborgium	Sg
107	Bohrium	Bh
108	Hassium	Hs
109	Meitnerium	Mt
110	Darmstadtium	Ds
111	Roentgenium	Rg
112	Copernicium	Cn
114	Flerovium	Fl
116	Livermorium	Lv

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