L1-CHEMR





# Level 1 Chemistry, 2014

9.30 am Wednesday 19 November 2014

# RESOURCE BOOKLET for 90933 and 90934

Refer to this booklet to answer the questions in your Question and Answer Booklets.

Check that this booklet has pages 2 and 3 in the correct order and that neither of these pages is blank.

YOU MAY KEEP THIS BOOKLET AT THE END OF THE EXAMINATION.

## **Activity series**

Ca Mg Al Zn Fe Pb (H) Cu Ag

### Solubility rules

nitrates, NO <sub>3</sub>	All soluble
chlorides, Cl	All <b>soluble</b> except AgCl, PbCl <sub>2</sub>
iodides, I	All <b>soluble</b> except AgI, PbI <sub>2</sub>
sulfates, $SO_4^{2-}$	All <b>soluble</b> except BaSO <sub>4</sub> , PbSO <sub>4</sub> , CaSO <sub>4</sub>
hydroxides, OH	All insoluble except KOH, NaOH
carbonates, CO <sub>3</sub> <sup>2-</sup>	All insoluble except K <sub>2</sub> CO <sub>3</sub> , Na <sub>2</sub> CO <sub>3</sub>

### Table of ions

+1	+2	+3	-3	-2	-1
NH <sub>4</sub> <sup>+</sup>	Ca <sup>2+</sup>	A1 <sup>3+</sup>		O <sup>2-</sup>	OH_
Na <sup>+</sup>	Mg <sup>2+</sup>	Fe <sup>3+</sup>		S <sup>2-</sup>	Cl <sup>-</sup>
K <sup>+</sup>	Cu <sup>2+</sup>			CO <sub>3</sub> <sup>2-</sup>	Γ
Ag <sup>+</sup>	Pb <sup>2+</sup>			SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub>
H <sup>+</sup>	Fe <sup>2+</sup>				HCO <sub>3</sub>
Li <sup>+</sup>	Ba <sup>2+</sup>				
	Zn <sup>2+</sup>				

# PERIODIC TABLE OF THE ELEMENTS

18 2 <b>He</b>	10 <b>Ne</b>	18 Ar	36 <b>Kr</b>	54 Xe	86 <b>Rn</b>	
17	9 F	17 CI	35 Br	53 I	85 At	
16	8	16 S	34 Se	52 Te	84 <b>Po</b>	116 Lv
15	Z	15 <b>P</b>	33 As	51 <b>Sb</b>	83 <b>Bi</b>	
14	) 9	14 S <b>i</b>	32 Ge	50 <b>Sn</b>	82 <b>Pb</b>	FI FI
13	5 <b>B</b>	13 Al	31 <b>Ga</b>	49 In	18 TI	
		12	30 <b>Zn</b>	48 Cd	80 <b>Hg</b>	112 Cn
		11	29 Cu	47 <b>Ag</b>	79 <b>Au</b>	111 <b>Rg</b>
		10	28 <b>Ni</b>	46 <b>Pd</b>	78 <b>Pt</b>	110 <b>Ds</b>
		6	27 Co	45 <b>Rh</b>	77 Ir	109 <b>Mt</b>
	1	8	26 Fe	44 <b>Ru</b>	92 Os	108 <b>Hs</b>
П Н		~	25 Mn	43 Tc	75 <b>Re</b>	107 <b>Bh</b>
Atomic number		9	24 C <b>r</b>	42 <b>Mo</b>	74 W	106 S <b>g</b>
Atomic		Ŋ	23 V	41 <b>Nb</b>	73 <b>Ta</b>	105 <b>Db</b>
		4	22 <b>Ti</b>	40 <b>Zr</b>	72 Hf	104 <b>Rf</b>
		80	21 Sc	39 Y	71 Lu	103 Lr
2	4 <b>Be</b>	12 Mg	20 Ca	38 Sr	56 <b>Ba</b>	88 <b>Ra</b>
7	3 Li	11 <b>Na</b>	19 <b>K</b>	37 <b>Rb</b>	55 Cs	87 Fr

58	59	<b>PN</b>	61	62	63	64	65	66	67	68	69	70
Ce	<b>Pr</b>		<b>Pm</b>	<b>Sm</b>	Eu	<b>Gd</b>	Tb	<b>Dy</b>	<b>Ho</b>	Er	<b>Tm</b>	<b>Yb</b>
Th	91	92	93	94	95	96	97	98	99	100	101	102
	<b>Pa</b>	U	Np	<b>Pu</b>	<b>Am</b>	<b>Cm</b>	<b>Bk</b>	Cf	Es	<b>Fm</b>	<b>Md</b>	<b>No</b>