

Scottish Qualifications Authority

Advanced Higher Chemistry - 2001 Examination

Paper 1A

Statistical Data from Sample of Candidates

Item	Syllabus Section	Ability	Facility	r	Percentage Choosing Option				
					A	B	C	D	Omit
1	1ai	KU	0.67	0.24	11	17	4	67*	1
2	1ai	PS	0.88	0.07	2	6	88*	4	0
3	1ciii	KU	0.65	0.33	65*	26	4	5	0
4	1ciii	PS	0.53	0.31	23	53*	11	11	1
5	1cii	KU	0.85	0.33	7	4	85*	3	1
6	3bii	KU	0.66	0.33	25	66*	6	3	0
7	3bii	PS	0.49	0.30	10	37	49*	4	0
8	2bi	KU	0.71	0.31	71*	13	8	8	0
9	2bi	PS	0.64	0.35	12	11	64*	11	2
10	2bi	PS	0.63	0.25	6	63*	5	25	1
11	1aii	KU	0.75	0.33	6	75*	9	10	0
12	2e	KU	0.69	0.28	69*	12	13	5	2
13	2e	PS	0.61	0.34	61*	19	15	5	0
14	2dii	KU	0.77	0.36	5	5	12	77*	1
15	3bv	KU	0.50	0.31	12	26	12	50*	0
16	2cii	KU	0.34	0.35	20	33	12	34*	0
17	2cli	PS	0.65	0.33	24	8	65*	2	1
18	2ciii	KU	0.64	0.34	11	17	8	64*	1
19	2ciii	PS	0.60	0.35	60*	14	17	9	0
20	2ci	KU	0.72	0.30	8	72*	17	3	1
21	2ci	KU	0.91	0.23	0	5	91*	4	0
22	2ci	PS	0.71	0.43	23	4	71*	2	0
23	3bi	KU	0.61	0.34	61*	21	10	8	0
24	3bi	PS	0.52	0.20	52*	3	22	23	0
25	3bi	PS	0.83	0.28	0	83*	13	4	0
26	3biii	KU	0.87	0.10	8	2	2	87*	0
27	3biii	PS	0.86	0.27	4	7	86*	3	1
28	3biii	PS	0.61	0.20	21	7	10	61*	1
29	3bv	KU	0.40	0.28	20	28	11	40*	1
30	3e	KU	0.92	0.13	92*	5	3	0	0



Scottish Qualifications Authority

Advanced Higher Chemistry - 2002 Examination

Paper 1A

Statistical Data from Sample of Candidates

Item	Syllabus Section	Ability	Facility	r	Percentage Choosing Option				
					A	B	C	D	Omit
1	2bi	PS	0.66	0.27	15	8	66*	10	0
2	1biii	KU	0.89	0.32	5	89*	3	3	0
3	2cii	KU	0.74	0.25	11	74*	9	5	0
4	3di	KU	0.68	0.37	9	8	68*	14	1
5	3biv	KU	0.80	0.19	10	6	80*	4	0
6	2ci	KU	0.80	0.34	80*	12	5	3	0
7	1ci	PS	0.69	0.23	21	5	5	69*	0
8	1biii	KU	0.75	0.27	75*	14	6	5	0
9	2biii	PS	0.53	0.30	10	53*	35	2	0
10	2bi	PS	0.43	0.37	43*	13	3	41	0
11	2biii	PS	0.65	0.37	5	7	23	65*	0
12	2ciii	PS	0.39	0.18	4	8	49	39*	0
13	2dii	PS	0.62	0.34	18	10	62*	7	2
14	2f	PS	0.74	0.41	4	74*	14	7	0
15	2ci	KU	0.44	0.23	8	21	27	44*	0
16	2di	PS	0.60	0.30	10	21	9	60*	0
17	1bi	PS	0.65	0.21	65*	7	22	7	0
18	1ciii	KU	0.57	0.26	23	57*	15	4	0
19	1cii	KU	0.75	0.22	16	3	6	75*	0
20	2a	PS	0.26	0.30	26*	34	31	7	2
21	1bii	KU	0.43	0.23	17	24	16	43*	0
22	2e	PS	0.37	0.28	37*	16	41	6	0
23	2dii	PS	0.50	0.40	6	34	50*	10	0
24	3bv	PS	0.23	0.17	16	8	23*	52	0
25	3biii	KU	0.39	0.21	21	39*	19	20	1
26	3aiii	KU	0.67	0.25	10	12	67*	10	1
27	3bii	KU	0.66	0.38	17	66*	13	3	1
28	Higher	KU	0.44	0.35	44*	11	11	32	1
29	2a	PS	0.53	0.35	13	17	53*	16	1
30	3aii	PS	0.48	0.35	20	29	48*	3	0



Scottish Qualifications Authority

Advanced Higher Chemistry - 2003 Examination

Paper 1A

Statistical Data from Sample of Candidates

Item	Syllabus Section	Ability	<i>% correct</i>		Percentage Choosing Option					
			Facility	r	A	B	C	D	Omit	
1	1ai	KU	0.77	0.25	77*	12	6	6	0	<i>correct</i>
2	1ciii	KU	0.80	0.19	7	9	80*	4	0	<i>15</i>
3	1ci	KU	0.69	0.28	4	69*	1	26	0	<i>*</i>
4	1cii	KU	0.55	0.33	55*	5	12	28	0	
5	1ciii	PS	0.63	0.32	63*	16	10	10	0	
6	1aii	KU	0.80	0.14	12	1	7	80*	0	
7	1cii	KU	0.60	0.26	10	27	4	60*	0	
8	2dii	PS	0.29	0.24	3	5	63	29*	0	
9	2a	PS	0.46	0.38	5	46*	40	9	0	
10	2a	KU	0.67	0.16	8	6	18	67*	1	
11	2a	KU	0.51	0.42	15	31	51*	3	0	
12	2a	PS	0.62	0.41	10	21	7	62*	0	
13	2bi/iii	PS	0.76	0.34	76*	13	4	7	1	
14	2abi	PS	0.63	0.21	3	23	63*	10	0	
15	2biii	PS	0.76	0.36	76*	16	6	1	1	
16	2biii	PS	0.63	0.31	11	63*	12	13	0	
17	2biii	KU	0.51	0.34	25	51*	11	13	0	
18	2cii	KU	0.72	0.37	10	10	8	72*	0	
19	2ciii	PS	0.49	0.33	29	9	13	49*	0	
20	2ciii	PS	0.79	0.16	7	8	5	79*	1	
21	2f	PS	0.65	0.27	15	10	10	65*	0	
22	2dii	PS	0.58	0.39	14	19	58*	9	0	
23	2e	KU	0.93	0.24	3	93*	1	2	0	
24	2e	PS	0.70	0.41	8	5	16	70*	1	
25	2e	KU	0.48	0.32	24	18	48*	9	1	
26	2di	PS	0.82	0.33	9	6	3	82*	0	
27	3biii/iv	PS	0.40	0.29	17	40*	21	22	0	
28	3biv	KU	0.53	0.33	33	4	10	53*	0	
29	3aiiibi	KU	0.71	0.39	14	71*	13	3	0	
30	3aiiii	KU	0.57	0.35	57*	23	4	16	0	
31	3bii	KU	0.70	0.39	12	5	12	70*	1	
32	3bi	KU	0.81	0.34	81*	11	5	3	0	
33	3bv	KU	0.42	0.12	8	42*	43	7	0	
34	3bii	KU	0.55	0.41	29	12	55*	3	0	
35	3bi	KU	0.83	0.34	83*	8	4	5	0	
36	3bv	PS	0.92	0.05	92*	3	5	0	0	
37	3bv	KU	0.70	0.31	7	18	70*	6	0	
38	3bv	KU	0.37	0.37	37*	46	13	4	1	
39	3bi	KU	0.75	0.22	75*	21	2	1	1	
40	2cii	KU	0.54	0.12	37	4	54*	3	2	

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Scottish Qualifications Authority

Advanced Higher Chemistry - 2004 Examination

Section A

Statistical Data from Sample of Candidates

Item	Syllabus Section	Ability	Facility	r	Percentage Choosing Option				Omit
					A	B	C	D	
1	1aii	KU	0.88	0.19	2	1	9	88*	0
2	1bi	PS	0.65	0.36	8	21	65*	5	1
3	1biii	KU	0.64	0.45	21	64*	10	4	1
4	1ci	KU	0.83	0.33	10	3	3	83*	0
5	1ci	PS	0.74	0.37	5	11	9	74*	1
6	1bii	KU	0.57	0.40	36	57*	8	0	0
7	1bii	PS	0.56	0.27	27	11	56*	5	1
8	1cii	KU	0.47	0.35	37	47*	14	3	0
9	1ciii	KU	0.54	0.29	26	6	13	54*	0
10	2ai	KU	0.77	0.18	12	9	77*	2	0
11	2ai	PS	0.52	0.40	6	52*	6	35	1
12	2bi	PS	0.83	0.27	8	6	2	83*	0
13	2bi	KU	0.77	0.32	77*	10	7	7	0
14	Unit 2	PS	0.74	0.28	17	5	74*	4	0
15	2ci	PS	0.54	0.25	6	54*	6	33	0
16	2ci	KU	0.68	0.38	13	68*	13	5	1
17	2cii	KU	0.69	0.29	4	69*	7	19	0
18	2ciii	PS	0.77	0.29	3	18	77*	1	1
19	2ciii	PS	0.59	0.44	59*	13	5	22	0
20	2ciii	KU	0.76	0.33	2	18	76*	4	1
21	2di	PS	0.41	0.22	3	3	41*	51	1
22	2dii	PS	0.43	0.26	43*	30	22	6	0
23	2dii	PS	0.60	0.42	16	11	60*	11	1
24	2dii	PS	0.59	0.38	59*	11	16	14	1
25	2ei	KU	0.66	0.39	66*	19	5	9	0
26	2ei	KU	0.70	0.18	14	70*	14	2	0
27	2fi	KU	0.68	0.38	22	68*	2	7	1
28	3ai	KU	0.63	0.42	63*	3	26	7	0
29	3bi	KU	0.65	0.41	20	65*	9	5	0
30	3bv	KU	0.66	0.41	11	9	13	66*	0
31	3bi	KU	0.51	0.39	51*	13	26	8	1
32	3bii	KU	0.94	0.19	94*	3	2	1	1
33	3bii	PS	0.65	0.42	17	9	65*	9	0
34	3biii	KU	0.64	0.32	17	8	11	64*	0
35	3biii	KU	0.43	0.41	14	25	16	43*	1
36	3biii	PS	0.33	0.20	33*	18	42	7	1
37	3biv	KU	0.80	0.35	2	8	9	80*	0
38	3bv	KU	0.42	0.41	42*	12	17	29	1
39	3dii	KU	0.65	0.40	27	5	65*	3	0
40	3bii	KU	0.64	0.28	4	30	2	64*	0

Chemistry Advanced Higher 2005

Section A

Number of persons in test : 1773
 Average test score : 26.46
 Average facility value : 66.14
 Reliability : 0.82

Item	Syllabus Section	Ability	Fac	Discr	% Choosing Option			
					A	B	C	D
1	1a ii	KU	92	20	1	5	92*	2
2	1a ii	PS	79	16	79*	7	11	3
3	1a ii	KU	80	23	1	16	3	80*
4	1a iii	KU	48	26	48	48*	1	2
5	1a iii	PS	67	24	10	13	67*	11
6	1a iii	KU	76	30	5	8	76*	11
7	1b i	KU	87	23	87*	1	10	2
8	1b i	KU	75	26	3	9	13	75*
9	1b ii	PS	57	22	38	2	4	57*
10	1b iii	KU	94	25	3	94*	2	1
11	2a	PS	35	15	36	18	10	35*
12	2a	PS	25	30	20	30	25*	24
13	2b i	KU	88	28	2	5	5	88*
14	2b i	PS	66	39	8	66*	11	15
15	2b iii	KU	72	28	72*	13	3	12
16	2b iii	KU	45	27	10	45*	6	39
17	2b iii	KU	55	40	55*	21	9	15
18	2b iii	PS	51	40	51*	21	14	14
19	2c i	KU	89	23	5	89*	3	2
20	2d i	PS	76	40	7	76*	13	4
21	2d ii	KU	52	16	52*	18	15	15
22	2d ii	KU	86	32	5	4	86*	4
23	2d ii	KU	80	33	80*	7	12	2
24	2e	PS	49	32	17	49*	7	27
25	2f	PS	57	29	35	5	57*	3
26	3a i	KU	79	40	6	5	10	79*
27	3a ii	KU	77	29	3	77*	5	16
28	3a ii	KU	59	37	59*	8	26	6
29	3a ii	KU	68	22	68*	25	4	3
30	3a iii	PS	45	12	15	24	45*	15
31	3b v	KU	52	29	14	18	52*	15
32	3b i	KU	79	22	6	8	6	79*
33	3b i	PS	66	27	11	12	66*	11
34	3b i	PS	72	40	18	4	6	72*
35	3b i	KU	66	42	66*	22	5	7
36	3b i	KU	69	36	15	8	69*	7
37	3b ii	PS	63	42	14	63*	5	17
38	3b iii	PS	53	32	25	7	14	53*
39	3b iii	PS	61	21	20	61*	10	8
40	3b v	PS	55	26	18	9	55*	17

Chemistry Advanced Higher 2006

Section A

Number of persons in test : 1979
 Average test score : 27.73
 Average facility value : 69.33
 Reliability : 0.84

Item	Content Area	Ability	Fac	Disc	% Choosing Option			
					A	B	C	D
1	1 (a) (iii)	KU	77	22	3	7	13	77*
2	1 (b) (ii)	KU	59	24	11	59*	24	7
3	1 (c) (i)	KU	91	26	91*	2	4	2
4	1 (b) (iii)	KU	89	29	8	89*	2	1
5	1 (b) (i)	PS	59	28	59*	7	15	19
6	1 (c) (i)	PS	67	21	1	28	4	67*
7	1 (a) (ii)	KU	85	24	5	9	85*	2
8	1 (c) (iii)	PS	82	25	9	82*	4	5
9	1 (c) (iii)	PS	54	33	14	54*	18	13
10	2 (a)	KU	65	43	65*	25	4	6
11	2 (b) (i)	KU	90	24	7	3	90*	1
12	2 (b) (ii)	KU	77	42	77*	7	12	4
13	2 (b) (iii)	KU	61	32	5	16	17	61*
14	2 (b) (iii)	PS	55	33	7	28	10	55*
15	2 (b) (iii)	PS	48	35	35	12	48*	4
16	2 (c) (ii)	PS	55	40	11	29	55*	6
17	2 (c) (i)	PS	28	14	31	35	5	28*
18	2 (c) (iii)	KU	75	26	75*	6	12	7
19	2 (c) (iii)	PS	66	48	13	66*	9	13
20	2 (d) (i)	PS	79	29	79*	7	9	6
21	2 (d) (ii)	KU	67	24	15	67*	9	9
22	2 (d) (ii)	KU	70	31	5	70*	21	5
23	2 (e)	PS	64	37	9	12	14	64*
24	2 (f)	PS	71	37	71*	18	7	3
25	2 (f)	PS	81	39	5	81*	9	5
26	3 (a) (i)	PS	85	26	11	0	85*	3
27	3 (a) (ii)	PS	60	32	8	60*	24	8
28	3 (b) (i)	KU	79	40	79*	8	7	6
29	3 (b) (i)	KU	78	41	14	3	78*	5
30	3 (b) (i)	KU	90	30	90*	3	4	3
31	3 (b) (ii)	KU	74	40	6	11	74*	9
32	3 (b) (iii)	PS	73	31	3	73*	9	15
33	3 (b) (iii)	KU	65	26	10	65*	17	8
34	3 (b) (iv)	KU	46	38	11	14	46*	29
35	3 (b) (v)	PS	20	23	34	25	20*	21
36	3 (c)	KU	78	37	9	7	6	78*
37	3 (d) (i)	KU	68	36	68*	26	5	1
38	3 (d) (i)	PS	72	37	6	11	11	72*
39	3 (d) (ii)	KU	80	39	1	12	80*	6
40	3 (e)	PS	90	23	90*	8	2	1



Chemistry Advanced Higher 2007

Section A

Number of persons in test : 2017
 Average test score : 27.79
 Average facility value : 69.47
 Reliability : 0.84

Item	Key	Content Area		Ability	Fac	Disc	% choosing option				
							A	B	C	D	
1	C	1	(b)	(i)	PS	48	14	6	44	48*	2
2	A	1	(b)	(i)	PS	72	27	72*	4	19	4
3	A	1	(a)	(i)	KU	86	30	86*	6	3	5
4	D	1	(a)	(ii)	KU	44	13	3	45	7	44*
5	C	1	(a)	(i)	KU	70	38	25	3	70*	3
6	A	1	(b)	(ii)	PS	71	39	71*	5	6	17
7	A	1	(b)	(ii)	PS	82	28	82*	5	5	7
8	C	1	(b)	(iii)	KU	92	21	2	2	92*	5
9	C	1	(a)	(iii)	KU	57	35	27	15	57*	1
10	D	1	(a)	(ii)	KU	72	27	4	21	3	72*
11	B	1	(c)	(i)	KU	60	34	21	60*	10	9
12	C	2	(a)		KU	73	27	7	19	73*	1
13	C	2	(a)		PS	65	30	19	12	65*	4
14	C	2	(b)	(i)	PS	77	38	3	6	77*	14
15	B	2	(b)	(ii)	PS	82	28	13	82*	2	3
16	A	2	(c)	(i)	KU	80	32	80*	13	2	5
17	A	2	(c)	(i)	PS	67	17	67*	4	18	10
18	B	2	(c)	(ii)	KU	66	31	2	66*	29	3
19	D	2	(c)	(iii)	PS	64	43	13	13	10	64*
20	C	2	(d)	(i)	PS	75	35	13	6	75*	6
21	D	2	(d)	(ii)	KU	88	29	4	4	3	88*
22	C	2	(d)	(ii)	PS	59	33	15	16	59*	10
23	B	2	(e)		PS	70	34	10	70*	9	10
24	D	2	(f)		PS	71	45	6	9	14	71*
25	C	3	(b)	(i)	KU	60	37	18	17	60*	5
26	D	3	(b)	(iv)	KU	61	41	30	3	6	61*
27	A	3	(b)	(v)	KU	70	38	70*	7	18	5
28	B	3	(b)	(v)	PS	62	19	10	62*	9	19
29	D	3	(a)	(ii)	PS	81	38	8	6	4	81*
30	B	3	(a)	(iii)	KU	74	26	2	74*	20	4
31	B	3	(b)	(i)	KU	72	25	5	72*	22	1
32	D	3	(b)	(i)	PS	71	47	21	2	5	71*
33	B	3	(b)	(i)	KU	80	42	7	80*	9	4
34	A	3	(b)	(i)	PS	80	24	80*	6	9	5
35	B	3	(b)	(ii)	PS	64	41	7	64*	22	7
36	B	3	(b)	(ii)	PS	53	28	15	53*	21	10
37	B	3	(b)	(iii)	KU	41	38	4	41*	40	15
38	A	3	(b)	(v)	PS	68	29	68*	19	4	8
39	D	3	(c)		KU	81	37	8	5	6	81*
40	D	3	(d)	(i)	PS	71	37	5	11	13	71*



Chemistry Advanced Higher 2008

Section A

Number of persons in test : 2111
 Average test score : 26.85
 Average facility value : 67.13
 Reliability : 0.83

Item	Key	Content Area	Ability	Fac	Disc	% Choosing Option			
						A	B	C	D
1	D	1 (a) (ii)	KU	37	10	11	46	6	37*
2	D	1 (a) (ii)	PS	69	29	4	15	13	69*
3	B	1 (b) (i)	PS	74	37	5	74*	9	13
4	C	1 (b) (iii)	KU	83	33	9	2	83*	5
5	B	1 (b) (iii)	KU	75	33	14	75*	6	5
6	A	1 (b) (iii)	KU	85	25	85*	1	6	8
7	D	1 (c) (i)	PS	75	16	14	4	7	75*
8	C	1 (c) (i)	PS	58	26	11	14	58*	17
9	A	1 (c) (ii)	PS	70	31	70*	6	17	6
10	C	1 (c) (ii)	PS	74	24	15	5	74*	6
11	B	1 (c) (ii)	PS	53	30	29	53*	14	4
12	D	2 (b) (i)	PS	43	30	37	17	3	43*
13	D	2 (b) (i)	PS	89	29	5	1	6	89*
14	C	2 (b) (i)	PS	68	38	17	10	68*	5
15	B	2 (b) (ii)	PS	39	25	18	39*	13	28
16	C	2 (b) (iii)	KU	78	28	8	4	78*	9
17	A	2 (c) (ii)	KU	73	38	73*	10	10	5
18	A	2 (d) (i)	KU	72	25	72*	1	10	17
19	B	2 (d) (i)	PS	85	35	4	85*	7	4
20	A	2 (e)	KU	74	24	74*	5	5	16
21	D	2 (e)	PS	70	34	6	8	16	70*
22	B	2 (e)	PS	78	27	15	78*	4	3
23	A	2 (e)	KU	75	40	75*	13	6	5
24	A	3 (a) (ii)	PS	51	38	51*	15	30	3
25	C	3 (a) (iii)	KU	79	29	2	16	79*	4
26	D	3 (a) (iii)	PS	70	25	11	15	3	70*
27	B	3 (b) (ii)	PS	73	33	4	73*	14	9
28	A	3 (b) (ii)	PS	67	32	67*	4	25	4
29	C	3 (b) (ii)	PS	71	37	9	10	71*	9
30	C	3 (b) (ii)	PS	63	41	14	10	63*	12
31	D	3 (b) (ii)	PS	48	39	21	12	18	48*
32	B	3 (b) (iii)	PS	63	39	22	63*	10	4
33	D	3 (b) (iii)	PS	57	35	11	22	10	57*
34	D	3 (b) (iv)	PS	65	37	26	4	5	65*
35	A	3 (b) (v)	PS	71	33	71*	15	4	9
36	B	3 (c)	PS	69	27	12	69*	10	9
37	A	3 (c)	PS	76	23	76*	14	6	4
38	C	3 (d) (i)	PS	72	30	5	14	72*	9
39	D	3 (d) (ii)	PS	58	36	14	18	10	58*
40	C	3 (e)	PS	38	22	29	13	38*	20



Chemistry Advanced Higher 2009

Section A

Number of persons in test : 2143
 Average test score : 24.18
 Average facility value : 60.46
 Reliability : 0.79

Item	Key	Content Area	Ability	Fac	Disc	% Choosing Option			
						A	B	C	D
1	D	1 (a) (iii)	KU	88	19	6	4	2	88*
2	D	1 (b) (i)	KU	70	25	16	7	6	70*
3	A	1 (b) (i)	PS	74	26	74*	5	15	6
4	C	1 (b) (ii)	PS	49	24	5	35	49*	11
5	A	1 (b) (iii)	KU	75	21	75*	8	5	12
6	C	1 (c) (i)	KU	29	27	44	20	29*	7
7	D	1 (c) (i)	KU	65	-5	26	4	5	65*
8	B	1 (c) (iii)	KU	46	44	10	46*	38	6
9	D	2 (a)	PS	58	40	26	8	8	58*
10	C	2 (a)	PS	64	27	5	19	64*	11
11	D	2 (a)	PS	28	10	20	10	41	28*
12	D	2 (b) (i)	PS	80	31	8	4	9	80*
13	A	2 (b) (i)	KU	70	25	70*	8	12	9
14	A	2 (b) (ii)	PS	33	6	33*	4	61	2
15	B	2 (b) (iii)	KU	72	35	7	72*	12	8
16	C	2 (b) (iii)	PS	33	23	32	20	33*	14
17	A	2 (d) (ii)	KU	84	28	84*	3	2	11
18	A	2 (d) (ii)	PS	52	33	52*	12	31	5
19	D	2 (d) (ii)	PS	64	32	10	14	11	64*
20	B	2 (f)	KU	84	34	10	84*	6	0
21	B	2 (f)	PS	85	35	1	85*	6	8
22	C	3 (a) (ii)	KU	46	19	14	5	46*	35
23	A	3 (a) (ii)	KU	61	36	61*	8	12	19
24	C	3 (a) (ii)	PS	63	21	8	3	63*	26
25	B	3 (b) (i)	PS	56	15	30	56*	6	8
26	D	3 (b) (i)	PS	69	28	17	7	8	69*
27	D	3 (b) (i)	PS	59	18	5	26	10	59*
28	A	3 (b) (ii)	KU	52	42	52*	14	9	24
29	C	3 (b) (ii)	KU	78	33	7	9	78*	6
30	C	3 (b) (ii)	KU	68	44	8	15	68*	8
31	B	3 (b) (iii)	KU	72	41	10	72*	3	16
		Higher							
32	C	3 (b) (iii)	PS	35	4	24	30	35*	11
33	C	3 (b) (v)	PS	51	37	23	19	51*	7
34	D	3 (b) (iv)	PS	65	34	11	7	16	65*
35	B	3 (b) (v)	KU	41	29	17	41*	25	17
36	A	3 (b) (v)	PS	62	29	62*	13	9	16
37	B	3 (b) (iv)	KU	16	-6	54	16*	14	15
38	B	3 (c)	PS	71	40	6	71*	17	7
39	C	3 (d) (ii)	KU	60	30	21	11	60*	8
40	C	3 (e)	KU	91	24	7	1	91*	1



Chemistry Advanced Higher 2010

Section A

Number of persons in test : 2,186
 Average test score : 27.26
 Average facility value : 68.15
 Reliability : 0.79

Item	Key	Content Area	Ability	Fac	Disc	% Choosing Option			
						A	B	C	D
1	D	1 (a) (ii)	KU	86	28	1	10	3	86*
2	C	1 (a) (ii)	KU	61	23	33	5	61*	1
3	D	1 (a) (ii)	KU	89	20	1	1	9	89*
4	B	1 (a) (ii)	PS	77	19	11	77*	8	5
5	B	1 (a) (iii)	KU	56	10	4	56*	8	32
6	D	1 (b) (ii)	KU	53	29	13	19	14	53*
7	A	1 (b) (iii)	PS	78	28	78*	3	16	3
8	B	1 (c) (i)	KU	75	31	19	75*	4	2
9	D	1 (c) (i)	PS	67	18	4	1	28	67*
10	C	1 (c) (i)	PS	56	18	11	3	56*	29
11	C	2 (b) (i)	PS	75	33	11	7	75*	7
12	A	2 (b) (ii)	PS	85	29	85*	5	5	5
13	B	2 (b) (iii)	KU	89	27	6	89*	2	4
14	A	2 (b) (iii)	PS	70	27	70*	15	10	4
15	D	2 (c) (i)	KU	49	31	14	17	20	49*
16	A	2 (c) (i)	PS	56	32	56*	16	11	17
17	D	2 (c) (i)	KU	60	25	14	18	8	60*
18	B	2 (c) (ii)	KU	74	36	12	74*	6	8
19	C	2 (c) (iii)	KU	76	35	1	19	76*	3
20	D	2 (c) (iii)	PS	58	34	21	5	16	58*
21	D	2 (c) (iii)	PS	76	21	6	10	7	76*
22	C	2 (d) (ii)	PS	79	27	5	7	79*	10
		2 (e)							
23	C	2 (e)	PS	83	31	6	6	83*	5
24	A	2 (e)	PS	33	15	33*	24	5	38
25	C	3 (a) (i)	KU	77	29	8	7	77*	8
26	D	3 (a) (ii)	KU	75	36	10	13	2	75*
		3 (b) (i)							
27	C	3 (a) (iii)	PS	75	33	6	16	75*	3
28	B	3 (b) (i)	KU	87	25	3	87*	9	1
29	A	3 (b) (i)	PS	51	19	51*	20	24	5
30	B	3 (b) (i)	PS	49	20	30	49*	15	5
31	D	3 (b) (i)	KU	55	34	27	11	7	55*
32	B	3 (b) (ii)	KU	83	25	2	83*	4	11
33	A	3 (b) (ii)	PS	58	34	58*	6	21	15
34	B	3 (b) (iii)	KU	48	14	38	48*	11	3
35	D	3 (b) (iii)	PS	70	33	7	6	17	70*
36	A	3 (b) (v)	KU	69	33	69*	9	17	4
37	C	3 (b) (v)	KU	64	32	13	8	64*	14
38	B	3 (c)	PS	75	28	14	75*	4	7
39	A	3 (d) (i)	KU	42	16	42*	2	7	48
40	C	3 (d) (ii)	PS	88	27	4	5	88*	3



Chemistry Advanced Higher 2011

Section A

Number of persons in test : 2,444
 Average test score : 25.72
 Average facility value : 64.29
 Reliability : 0.80

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option			
						A	B	C	D
1	A	1 (a) (ii)	PS	86	12	86*	5	7	2
2	B	1 (a) (iii)	KU	81	19	15	81*	2	2
3	A	1 (b) (i)	PS	77	29	77*	4	8	11
4	C	1 (b) (ii)	PS	66	26	2	4	66*	29
5	C	1 (b) (iii)	PS	67	32	4	15	67*	15
6	C	1 (b) (iii)	KU	75	36	2	14	75*	8
7	A	1 (c) (i)	KU	56	27	56*	9	8	27
8	D	1 (c) (i)	KU	56	30	20	17	7	56*
9	C	1 (c) (i)	PS	77	22	17	2	77*	4
10	D	1 (c) (iii)	PS	52	22	32	9	7	52*
11	B	2 (a)	PS	47	29	4	47*	35	13
12	C	2 (b) (i)	KU	85	26	3	9	85*	3
13	A	2 (b) (i)	PS	75	31	75*	10	13	2
14	C	2 (b) (ii)	PS	88	25	2	9	88*	1
15	C	2 (b) (ii)	PS	48	24	29	9	48*	13
16	D	2 (b) (iii)	PS	74	25	3	4	19	74*
17	B	2 (c) (i)	PS	59	18	28	59*	5	7
18	B	2 (c) (i)	KU	69	35	10	69*	15	6
19	A	2 (c) (ii)	KU	52	35	52*	41	4	3
20	D	2 (c) (ii)	KU	76	27	4	2	17	76*
21	B	2 (c) (iii)	KU	42	26	19	42*	19	20
22	A	2 (c) (iii)	PS	39	34	39*	16	22	22
23	D	2 (d) (i)	PS	74	25	11	7	9	74*
24	B	2 (d) (i)	PS	61	25	20	61*	10	9
25	D	2 (e)	PS	52	18	20	15	12	52*
26	C	3 (a) (i)	KU	82	23	6	4	82*	8
27	A	3 (a) (iii)	KU	67	23	67*	23	5	4
28	C	3 (b) (i)	KU	79	37	15	3	79*	3
29	A	3 (b) (i)	PS	51	29	51*	24	15	9
30	C	3 (b) (i)	PS	62	22	2	27	62*	9
31	A	3 (b) (i)	KU	76	30	76*	20	3	1
32	B	3 (b) (ii)	KU	67	37	13	67*	4	15
33	D	3 (b) (iv)	PS	89	29	3	5	3	89*
34	B	3 (b) (iv)	PS	41	29	7	41*	36	15
35	D	3 (b) (v)	KU	72	41	5	16	7	72*
36	B	3 (b) (v)	KU	51	32	26	51*	22	1
37	C	3 (c)	KU	64	20	31	3	64*	1
38	A	3 (d) (i)	PS	74	37	74*	13	5	7
39	D	3 (d) (ii)	KU	35	27	27	16	22	35*
40	D	3 (d) (ii)	PS	27	10	23	16	34	27*



Chemistry Advanced Higher 2012

Section A

Number of persons in test : 2,431
 Average test score : 25.77
 Average facility value : 64.43
 Reliability : 0.81

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option			
						A	B	C	D
1	A	1 (a) (i)	KU	87	30	87*	7	4	3
2	D	1 (a) (ii)	PS	46	24	9	13	32	46*
3	D	1 (a) (ii)	PS	76	29	8	10	7	76*
4	A	1 (a) (iii)	KU	37	23	37*	56	4	3
5	B	1 (a) (iii)	KU	69	30	27	69*	2	2
6	B	1 (b) (ii)	PS	57	31	6	57*	17	20
7	D	1 (c) (iii)	PS	46	22	9	5	39	46*
8	C	2 (b) (i)	KU	80	17	8	9	80*	4
9	A	2 (b) (i)	PS	22	26	56	12	22*	10
10	A	2 (b) (i)	PS	30	26	30*	29	34	6
11	C	2 (b) (iii)	KU	49	30	4	35	49*	13
12	D	2 (b) (iii)	PS	50	42	13	26	10	50*
13	D	2 (b) (iii)	PS	92	15	4	3	1	92*
14	B	2 (c) (i)	KU	74	27	14	74*	7	5
15	A	2 (c) (i)	PS	79	28	79*	4	7	10
16	A	2 (c) (i)	KU	56	24	56*	7	17	20
17	A	2 (c) (ii)	PS	36	40	36*	3	31	30
18	C	2 (c) (iii)	KU	73	40	5	6	73*	16
19	C	2 (c) (iii)	PS	81	33	5	8	81*	7
20	D	2 (d) (i)	PS	89	28	7	2	2	89*
21	C	2 (d) (i)	KU	47	30	11	32	47*	10
22	C	2 (d) (ii)	PS	67	16	9	21	67*	3
23	B	3 (a) (i)	KU	68	27	2	68*	5	25
24	D	3 (a) (ii)	KU	86	31	10	4	1	86*
25	B	3 (a) (ii)	KU	72	35	5	72*	6	17
26	A	3 (a) (iii)	KU	72	24	72*	2	7	20
27	C	3 (a) (iii)	PS	66	29	14	12	66*	8
28	D	3 (b) (i)	KU	78	33	2	16	4	78*
29	A	3 (b) (i)	PS	56	35	56*	19	19	6
30	B	3 (b) (i)	PS	88	22	5	88*	4	2
31	B	3 (b) (i)	PS	20	22	57	20*	13	11
32	A	3 (b) (iii)	KU	69	40	69*	13	11	8
33	B	3 (b) (iii)	KU	92	25	4	92*	2	2
34	D	3 (b) (iv)	KU	82	31	7	2	9	82*
35	B	3 (b) (v)	KU	68	36	12	68*	2	17
36	B	3 (c)	PS	50	26	12	50*	34	4
37	D	3 (d) (i)	PS	20	9	11	5	64	20*
38	A	3 (d) (ii)	KU	74	28	74*	5	17	3
39	D	3 (d) (i)	KU	82	29	1	4	13	82*
40	D	3 (e)	KU	94	20	2	1	3	94*



Chemistry Advanced Higher 2013

Section A

Number of persons in test: 2,522
 Average test score: 28.02
 Average facility value: 70.04
 Reliability: 0.82

Item	Key	Content Area	Abilities	Fac	Disc	% Choosing Option			
						A	B	C	D
1	C	1 a ii	KU	90	18	2	4	90*	3
2	B	1 a i	KU	77	25	12	77*	4	7
3	A	1 a i	PS	74	25	74*	11	4	11
4	D	1 a i/2 b iii	PS	62	19	14	9	15	62*
5	D	1 a ii	KU	70	26	15	1	14	70*
6	A	1 a ii	KU	62	28	62*	9	20	9
7	C	1 a iii	PS	60	34	25	7	60*	8
8	A	1 b i	KU	61	38	61*	7	20	12
9	C	1 b i	KU	78	32	11	4	78*	7
10	B	1 b i	PS	79	36	9	79*	6	5
11	C	1 b ii	PS	63	32	25	4	63*	7
12	C	1 b iii	KU	82	21	6	7	82*	4
13	D	1 c i	PS	76	35	4	8	11	76*
14	B	1 c ii	KU	69	34	12	69*	9	10
15	A	2 a	PS	51	38	51*	36	4	8
16	C	2 a	PS	46	32	18	30	46*	5
17	B	2 a	PS	54	37	8	54*	8	29
18	C	2 b i	PS	80	31	0	11	80*	9
19	A	2 b ii	KU	91	28	91*	3	1	5
20	D	2 b ii	PS	85	30	13	1	1	85*
21	B	2 b iii	PS	72	26	8	72*	10	10
22	D	2 b iii	PS	71	25	3	9	16	71*
23	A	2 b iii	PS	81	32	81*	12	5	2
24	B	2 c i/Higher	KU	76	24	4	76*	9	11
25	B	2 c ii	PC	46	30	26	46*	16	11
26	C	2 c ii	PS	51	12	45	2	51*	2
27	B	2 d i	PS	87	19	4	87*	4	5
28	D	2 d i	PS	57	29	8	10	25	57*
29	D	3 a i	KU	82	37	7	4	8	82*
30	A	3 a i	PS	87	32	87*	7	2	5
31	D	3 a ii	KU	79	28	4	5	13	79*
32	A	3 a ii	KU	93	25	93*	2	2	2
33	B	3 a iii	KU	77	39	6	77*	10	7
34	D	3 b ii	KU	79	32	5	5	11	79*
35	D	3 b ii	PS	61	37	12	14	13	61*
36	C	3 b iv	KU	63	37	9	11	63*	16
37	D	3 b iv	PS	28	31	30	32	10	28*
38	B	3 b v	KU	61	34	21	61*	16	2
39	A	3 b v	PS	50	31	50*	31	14	6
40	D	3 e	KU	93	18	3	3	1	93*



Chemistry Advanced Higher 2014

Section A

Number of persons in test: 2,361
 Average test score: 29.12
 Average facility value: 72.81
 Reliability: 0.82

Item	Key	Content Area	Ability	Fac	Disc	% Choosing Option			
						A	B	C	D
1	B	1 a i	KU	78	24	12	78*	9	1
2	C	1 a i	KU	76	30	3	1	76*	19
3	C	1 a ii	KU	80	22	15	3	80*	2
4	C	1 a iii	KU	76	26	5	5	76*	13
5	D	1 b i	KU	86	27	3	5	6	86*
6	A	1 b i	PS	61	27	61*	8	24	7
7	A	1 b ii	PS	70	36	70*	6	19	4
8	D	1 c ii	KU	82	31	12	3	3	82*
9	C	1 b iii	PS	54	18	6	25	54*	15
10	B	2 a	KU	79	23	5	79*	3	14
11	D	2 b i	KU	86	22	5	5	4	86*
12	B	2 b i	PS	78	32	7	78*	5	10
13	D	2 b i	PS	65	40	8	7	19	65*
14	B	2 b ii	KU	49	28	31	49*	11	9
15	B	2 c ii	KU	77	34	2	77*	19	2
16	C	2 c ii	PS	71	28	8	5	71*	14
17	B	2 c iii	PS	69	40	8	69*	7	16
18	D	2 c iii	KU	94	27	2	1	3	94*
19	A	2 c iii	KU	87	32	87*	2	10	1
20	A	2 e	PS	94	28	94*	2	2	2
21	D	2 e	KU	80	34	6	4	10	80*
22	C	2 e	PS	65	29	17	14	65*	4
23	B	2 f	KU	67	37	11	67*	17	5
24	A	2 f	KU	52	25	52*	22	13	13
25	C	3 a i	KU	86	29	6	3	86*	5
26	B	3 b i	KU	86	25	3	86*	10	1
27	B	3 b i	KU	54	34	10	54*	3	33
28	C	3 b ii	KU	71	25	3	6	71*	20
29	C	3 b ii	KU	64	32	20	11	64*	4
30	A	3 b ii	PS	68	35	68*	4	22	5
31	D	3 b iii	KU	54	26	20	9	16	54*
32	A	3 b iii	KU	76	20	76*	2	16	5
33	A	3 b iv	PS	83	27	83*	8	4	6
34	B	3 b iv	PS	62	38	4	62*	15	18
35	D	3 c	KU	86	35	4	7	3	86*
36	A	3 c	PS	63	23	63*	27	6	3
37	D	3 d i	PS	46	28	20	11	23	46*
38	D	3 d i	PS	75	32	4	12	9	75*
39	C	3 d iii	KU	80	33	14	3	80*	2
40	A	3 e	PS	81	22	81*	14	3	2

Chemistry Advanced Higher (Objective Test) 2015

Item Label	Item nr.	Weight	Key	P- and A- values					F	O/D	%	Mis- singl	Max	Mean	P	Weighted			Rir	AR
				A	B	C	D	E								Sd	RSK	Rit		
1	1	1	C	17	2	80*	1		0	0	1	1	0.80	80	0.40	0.40	38	33	85	
2	2	1	D	5	2	1	92*		0	0	7	1	0.92	92	0.28	0.28	15	11	85	
3	3	1	D	4	4	1	91*		0	0	1	1	0.91	91	0.29	0.29	32	28	85	
4	4	1	A	88*	7	1	4		0	0	0	1	0.88	88	0.32	0.32	26	21	85	
5	5	1	B	3	77*	7	13		0	0	1	1	0.77	77	0.42	0.42	45	39	85	
6	6	1	C	10	11	73*	6		0	0	3	1	0.73	73	0.44	0.44	42	36	85	
7	7	1	C	5	1	90*	4		0	0	3	1	0.90	90	0.30	0.30	35	30	85	
8	8	1	D	1	17	2	80*		0	0	3	1	0.80	80	0.40	0.40	35	29	85	
9	9	1	B	9	55*	31	5		0	0	0	1	0.55	55	0.50	0.50	51	45	84	
10	10	1	C	10	8	81*	2		0	0	3	1	0.81	81	0.40	0.40	28	22	85	
11	11	1	A	90*	4	1	5		0	0	0	1	0.90	90	0.30	0.30	39	34	85	
12	12	1	C	4	22	67*	7		0	0	2	1	0.67	67	0.47	0.47	38	32	85	
13	13	1	B	7	77*	8	7		0	0	6	1	0.77	77	0.42	0.42	44	39	85	
14	14	1	D	14	49	9	27*		0	0	4	1	0.27	27	0.45	0.45	14	7	85	
15	15	1	B	4	83*	7	7		0	0	5	1	0.83	83	0.38	0.38	27	22	85	
16	16	1	A	78*	6	10	6		0	0	12	1	0.78	78	0.42	0.42	45	39	85	
17	17	1	C	14	2	81*	3		0	0	1	1	0.81	81	0.39	0.39	45	40	85	
18	18	1	A	75*	1	7	17		0	0	1	1	0.75	75	0.43	0.43	36	30	85	
19	19	1	A	89*	2	2	7		0	0	0	1	0.89	89	0.32	0.32	38	34	85	
20	20	1	B	11	77*	5	8		0	0	4	1	0.77	77	0.42	0.42	34	28	85	
21	21	1	D	7	9	11	71*		0	0	12	1	0.71	71	0.45	0.45	48	42	85	
22	22	1	A	83*	4	5	8		0	0	2	1	0.83	83	0.38	0.38	36	31	85	
23	23	1	B	15	54*	8	23		0	0	4	1	0.54	54	0.50	0.50	42	35	85	
24	24	1	A	71*	14	10	6		0	0	4	1	0.71	71	0.45	0.45	48	43	85	
25	25	1	B	2	60*	19	19		0	0	1	1	0.60	60	0.49	0.49	39	32	85	
26	26	1	D	1	8	17	73*		0	0	1	1	0.73	73	0.44	0.44	23	16	85	
27	27	1	B	1	88*	4	7		0	0	2	1	0.88	88	0.32	0.32	35	30	85	
28	28	1	C	8	1	81*	10		0	0	0	1	0.81	81	0.39	0.39	42	36	85	
29	29	1	A	68*	4	19	8		0	0	11	1	0.68	68	0.47	0.47	37	30	85	
30	30	1	A	62*	12	23	3		0	0	0	1	0.62	62	0.49	0.49	47	41	85	
31	31	1	A	77*	17	3	3		0	0	2	1	0.77	77	0.42	0.42	35	29	85	
32	32	1	D	11	10	38	40*		0	0	5	1	0.40	40	0.49	0.49	45	39	85	
33	33	1	B	10	70*	7	13		0	0	6	1	0.70	70	0.46	0.46	45	39	85	
34	34	1	A	60*	15	8	18		1	1	14	1	0.60	60	0.49	0.49	60	54	84	
35	35	1	B	9	76*	10	5		0	0	7	1	0.76	76	0.43	0.43	40	34	85	
36	36	1	D	10	9	19	61*		1	1	15	1	0.61	61	0.49	0.49	48	42	85	
37	37	1	B	3	89*	5	2		0	0	4	1	0.89	89	0.31	0.31	43	39	85	
38	38	1	C	15	8	71*	5		0	0	5	1	0.71	71	0.45	0.45	42	35	85	
39	39	1	C	4	0	93*	3		0	0	2	1	0.93	93	0.26	0.26	23	19	85	
40	40	1	C	24	12	45*	18		0	0	6	1	0.45	45	0.50	0.50	37	30	85	