



Objective Tests 2011 Data Booklet



Biology Intermediate 1 2011

Section A

Number of persons in test : 5,792
 Average test score : 12.58
 Average facility value : 50.31
 Reliability : 0.71

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option			
						A	B	C	D
1	D	2 4 (ii)	KU	81	27	11	5	2	81*
2	D	2 4 (iv)	KU	45	43	5	24	26	45*
3	B	2 4 (iii)	PS4	49	33	6	49*	7	38
4	D	2 4 (iii)	PS4	29	20	6	17	47	29*
5	D	2 2 (iii)	KU	22	8	30	28	20	22*
6	A	2 1 (i)	KU	34	21	34*	20	20	25
7	A	2 2 (v)	KU	42	33	42*	18	7	33
8	C	2 2 (ii)	PS	93	13	3	2	93*	1
9	D	1 3 (i)	KU	40	33	11	26	22	40*
10	B	1 4 (iii)	KU	73	30	10	73*	6	10
11	D	1 2 (iii)	PS1	38	34	27	13	21	38*
12	B	1 2 (iv)	KU	63	21	9	63*	22	6
13	C	1 2 (iv)	PS4	50	22	12	25	50*	12
14	D	1 3 (i)	KU	29	20	21	26	23	29*
15	A	1 2 (i)	KU	66	26	66*	6	14	13
16	C	1 4 (iv)	KU	36	18	29	13	36*	22
17	B	1 4 (v)	PS6	46	22	24	46*	5	24
18	B	3 3 (ii)	KU	54	33	12	54*	6	28
19	D	3 2 (ii)	KU	46	28	21	15	18	46*
20	B	3 2 (i)	PS4	52	30	8	52*	11	27
21	A	2 1 (iv)	KU	69	31	69*	12	16	3
22	B	3 2	PS5	57	20	16	57*	9	18
23	C	3 2	PS	67	30	7	22	67*	4
24	A	3 3 (i)	KU	39	13	39*	25	16	20
25	C	3 1 (iii)	PS3	35	17	29	27	35*	9



Biology Intermediate 2 2011

Section A

Number of persons in test : 7,476
 Average test score : 15.27
 Average facility value : 61.06
 Reliability : 0.79

Item	Key	Content	Area	Ability	Fac	Disc	% Choosing option			
							A	B	C	D
1	D	1 b	(i)	KU	70	26	20	3	7	70*
2	B	1 b	(i)	KU	42	28	29	42*	6	23
3	C	1 d 1	(ii)	KU	60	38	19	7	60*	14
4	D	1 d 1	(iii)	KU	34	35	23	12	30	34*
5	A	1 e 1	(ii)	PS4	59	39	59*	11	13	18
6	D	1 e 2	(i)	PS3	72	36	5	9	14	72*
7	B	1 e 2	(ii)	KU	39	16	39	39*	10	12
8	C	1 e 1 2	(i)	PS1	89	23	1	5	89*	5
9	B	2 b 1	(i)	PS3	61	36	21	61*	4	13
10	D	2 a 2	(iii)	PS4	43	38	2	1	53	43*
11	B	2 b 2	(viii)	PS3	43	36	33	43*	1	24
12	C	2 a 2	(ii)	PS6	87	24	3	7	87*	3
13	A	2 b 2	(xiv)	KU	55	32	55*	15	16	13
14	A	2 b 2	(v)/(vi)	KU	49	40	49*	25	24	2
15	C	2 b 2	(x)	KU	67	36	2	17	67*	15
16	C	2 b 2	(xi)	KU	83	32	7	7	83*	3
17	A	2 b 2	(xiii)	KU	67	34	67*	12	4	17
18	D	3 a 1	(iv)	PS4	70	40	12	10	7	70*
19	B	3 a 2	(v)	KU	72	28	10	72*	15	2
20	B	3 b	(i)	KU	62	35	19	62*	13	6
21	C	3 c 1	(i)	PS3	20	35	14	23	20*	43
22	D	3 c 1	(ii)	KU	78	30	1	19	2	78*
23	A	3 a 2	(iii)	KU	82	31	82*	3	12	3
24	B	3 a 2	(iv)	PS1	68	26	5	68*	20	6
25	A	3 a 2	(iv)	KU	57	27	57*	16	13	13



Biology Higher 2011

Section A

Number of persons in test : 9,761
 Average test score : 20.64
 Average facility value : 68.80
 Reliability : 0.76

Item	Key	Content	Area	Ability	Fac	Disc	% Choosing option			
							A	B	C	D
1	C	1 a	(ii)	PS7	47	9	45	4	47*	4
2	A	1 b 1	(i)	PS1	78	27	78*	6	5	11
3	C	1 c	(i)	KU	94	18	2	2	94*	3
4	D	1 c	(iv)	KU	83	34	3	4	9	83*
5	B	1 c	(ii)	PS3	73	24	9	73*	14	4
6	D	1 d	(i)	KU	85	30	5	2	8	85*
7	C	1 d	(ii)	PS3	87	30	7	2	87*	4
8	A	1 d	(ii/iii)	KU	69	36	69*	23	7	1
9	A	1 d	(iii)	KU	65	30	65*	17	5	13
10	D	1 e	(iii)	KU	61	26	15	13	11	61*
11	B	2 a	(i)	PS3	60	24	17	60*	7	16
12	B	2 a 1	(iii)	PS7	63	30	15	63*	15	7
13	D	2 a 2	(i)	KU	57	26	29	5	9	57*
14	D	2 a 3	(iii)	PS3	36	28	4	50	10	36*
15	A	2 b 1	(ii)	KU	51	26	51*	9	29	10
16	C	2 b 1	(v)	PS3	78	33	4	14	78*	5
17	B	2 c 1 p	(i)	PS6	71	18	8	71*	18	3
18	A	2 c 1 p	(iii)	KU	55	31	55*	12	27	5
19	B	2 c 2	(iii)	KU	66	26	8	66*	15	11
20	C	2 c 2 p	(iii)	KU	78	34	4	9	78*	10
21	C	3 a 1	(i)	KU	54	33	14	22	54*	10
22	D	3 a 2	(ii)	KU	84	30	11	2	3	84*
23	A	3 3	(ii)	KU	45	42	45*	17	10	29
24	B	3 a 3	(ii)	PS3	45	35	4	45*	47	3
25	B	3 a 4	(i)	PS7	70	35	22	70*	5	3
26	C	3 a 4	(iv)	KU	83	30	7	9	83*	2
27	D	3 a 4	(iv)	KU	70	7	14	6	10	70*
28	C	2 e	(i)	PS4	80	17	16	2	80*	3
29	A	3 c	(ii)	KU	91	30	91*	5	3	1
30	D	3 c	(iv)	KU	85	24	2	11	2	85*



Biology Advanced Higher 2011

Section A

Number of persons in test : 2,270
 Average test score : 18.56
 Average facility value : 74.23
 Reliability : 0.73

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option			
						A	B	C	D
1	C	1 b (i)	KU	73	19	12	3	73*	12
2	B	1 a (iv)	KU	86	33	4	86*	8	2
3	B	1 d (iv)	KU	56	24	23	56*	19	2
4	D	1 a (v)	PS1	87	17	1	11	1	87*
5	D	1 b (ii)	KU	87	33	4	7	2	87*
6	B	1 b (iv)	KU	83	32	10	83*	4	2
7	A	1 b (iv)	PS3	63	24	63*	29	5	3
8	A	1 b (v)	KU	78	38	78*	4	12	6
9	B	1 c (ii)	KU	53	21	5	53*	11	31
10	D	1 c (i)	KU	66	36	16	7	10	66*
11	D	1 c (i)	PS6	54	21	1	5	40	54*
12	A	1 d (i)	PS6	90	19	90*	3	6	2
13	C	2 a 1 (ii)	PS1	89	15	5	2	89*	4
14	A	2 a 1 (i)	PS3	87	20	87*	2	3	8
15	A	2 a 1 (ii)	KU	74	23	74*	1	6	20
16	C	2 b 2 (i)	KU	52	18	27	12	52*	9
17	C	2 a 2 (ii)	KU	69	41	11	8	69*	12
18	D	2 a 2 (ii)	KU	62	40	8	23	6	62*
19	C	2 a 2 (ii)	KU	63	39	11	18	63*	7
20	D	2 b (i)	KU	85	21	8	4	2	85*
21	C	2 b 1 (i)	KU	86	17	4	1	86*	8
22	B	2 b 3 (ii)	KU	84	29	6	84*	9	1
23	D	2 b 3 (ii)	KU	78	35	11	5	6	78*
24	B	2 c (iii)	KU	74	33	3	74*	5	18
25	B	2 c (ii)	KU	78	21	4	78*	17	1



Biotechnology Intermediate 2 2011

Section A

Number of persons in test : 99
 Average test score : 15.39
 Average facility value : 61.58
 Reliability : 0.72

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option			
						A	B	C	D
1	C	1 a (i/v)	KU	59	34	3	34	59*	4
2	B	1 a (v)	KU	80	22	9	80*	3	8
3	B	2 b (i)	PS	72	35	9	72*	6	13
4	A	1 a (i)	KU	81	3	81*	8	5	5
5	A	1 b (iv)	KU	67	19	67*	4	11	18
6	C	1 b (v)	KU	62	33	12	7	62*	18
7	C	2 a (iv)	PS	43	16	13	11	43*	32
8	D	2 a (iii)	KU	75	9	3	12	10	75*
9	B	2 a (iv)	PS	45	38	6	45*	47	1
10	A	1 b (i)	KU	36	24	36*	28	6	27
11	D	1 b (i)	PS	52	40	10	10	26	52*
12	B	1 b (ii)	PS	81	19	2	81*	0	17
13	A	3 d (iii)	KU	46	47	46*	11	10	32
14	B	1 c (ii)	KU	32	18	35	32*	10	22
15	D	3 d (ii)	KU	94	21	5	1	0	94*
16	A	3 c (i)	KU	10	19	10*	6	81	3
17	D	3 e	KU	47	48	12	20	20	47*
18	B	3 b (i)	KU	85	25	0	85*	1	14
19	D	3 c (ii)	PS	64	32	19	11	5	64*
20	B	3 c (ii)	PS	65	26	30	65*	4	1
21	B	3 c (ii)	PS	78	25	8	78*	2	12
22	B	2 a (iv)	PS	64	19	8	64*	27	0
23	C	1 c (ii)	KU	64	30	20	15	64*	1
24	D	3 e	KU	53	22	5	19	23	53*
25	A	3 a (iii)	KU	87	19	87*	6	7	0



Biotechnology Higher 2011

Section A

Number of persons in test : 27
 Average test score : 20.85
 Average facility value : 69.51
 Reliability : 0.81

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option			
						A	B	C	D
1	A	1 b 3 (iv)	KU	85	22	85*	0	15	0
2	D	1 a (iii)	KU	100	0	0	0	0	100*
3	C	1 b 2 (ii)	PS	33	33	44	11	33*	11
4	C	1 b (iv)	KU	63	62	4	0	63*	30
5	A	1 b (iv)	PS	52	80	52*	11	15	22
6	B	1 b 3 (v)	PS	74	62	15	74*	11	0
7	D	1 b 2 (i)	PS	48	19	0	33	19	48*
8	D	1 c (ii)	KU	41	30	0	11	44	41*
9	A	1 c (ii)	PS	11	12	11*	7	81	0
10	D	1 c (i)	KU	81	17	11	0	7	81*
11	A	1 c (i)	KU	74	-4	74*	15	11	0
12	C	1 d (iv)	PS	100	0	0	0	100*	0
13	A	1 d (iv)	KU	59	53	59*	41	0	0
14	B	1 d (iii)	KU	100	0	0	100*	0	0
15	B	2 a 1 (i)	KU	63	37	0	63*	7	30
16	A	2 a 1 (i)	KU	70	25	70*	4	7	19
17	B	2 a 2 (i)	KU	85	20	4	85*	7	4
18	D	2 2 (iii)	PS	41	31	4	0	56	41*
19	D	2 a 2 (ii)	KU	93	27	4	0	4	93*
20	B	1 d (i)	PS	78	50	11	78*	7	4
21	C	2 a 2 (iii)	KU	41	20	11	30	41*	19
22	A	3 a 4 (iii)	KU	89	46	89*	4	7	0
23	C	2 a 2 (v)	PS	70	60	11	7	70*	11
24	B	3 a 6 (iii)	KU	63	25	0	63*	26	11
25	A	3 a 6 (iii)	KU	70	54	70*	0	7	22
26	B	3 b 2 (ii)	PS	74	23	0	74*	19	7
27	C	3 b 2 (ii)	KU	89	53	4	0	89*	4
28	D	3 b 2 (ii)	KU	59	45	15	19	7	59*
29	D	3 b 2 (iv)	KU	96	4	0	0	4	96*
30	C	3 b 2 (v)	PS	81	-8	11	4	81*	4



Chemistry Intermediate 1 2011

Section A

Number of persons in test : 2,892
 Average test score : 12.45
 Average facility value : 62.26
 Reliability : 0.58

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option			
						A	B	C	D
1	D	1 (a) (iv)	KU	95	13	3	1	1	95*
2	B	1 (c) (iv)	KU	65	8	16	65*	13	6
3	D	1 (c) (i)	PS	17	12	29	29	25	17*
4	C	1 (d) (i)	PS	62	25	6	6	62*	26
5	C	1 (d) (ii)	KU	41	7	15	16	41*	29
6	A	2 (a)	KU	87	19	87*	3	4	7
7	C	2 (a) (i)	KU	70	19	10	9	70*	11
8	A	2 (b) (i)	KU	43	20	43*	7	15	36
9	D	2 (b) (i)	KU	63	30	10	8	18	63*
10	B	2 (b) (ii)	KU	84	22	5	84*	8	2
11	C	2 (d) (i)	PS	71	25	16	6	71*	8
12	A	2 (a) (ii)	KU	62	29	62*	24	6	7
13	C	2 (d) (ii)	KU	80	18	3	1	80*	15
14	B	3 (b) (ii)	PS	45	19	40	45*	11	3
15	B	3 (c) (i)	PS	88	14	4	88*	5	3
16	D	3 (c) (i)	KU	64	20	7	8	21	64*
17	A	3 (c) (iii)	KU	40	15	40*	19	10	30
18	D	3 (c) (vi)	KU	28	21	6	55	12	28*
19	C	3 (d) (i)	KU	55	27	8	22	55*	15
20	A	3 (d) (ii)	KU	87	25	87*	6	4	3



Chemistry Intermediate 2 2011

Section A

Number of persons in test : 4,461
 Average test score : 19.75
 Average facility value : 65.83
 Reliability : 0.80

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option			
						A	B	C	D
1	B	1 (a) (i)	PS	71	32	12	71*	12	4
2	D	1 (a) (ii)	KU	71	37	4	9	16	71*
3	A	1 (b) (ii)	KU	84	26	84*	4	4	9
4	D	1 (c) (i)	PS	72	39	6	16	6	72*
5	A	1 (c) (ii)	KU	88	32	88*	5	4	4
6	A	1 (a) (ii)	PS	15	13	15*	47	20	18
		3 (c) (iii)							
7	D	1 (d) (iii)	KU	74	26	14	10	2	74*
8	C	1 (e) (ii)	PS	54	34	18	15	54*	13
9	A	2 (a) (i)	PS	41	36	41*	36	12	11
10	C	2 (a) (ii)	KU	94	22	4	1	94*	1
11	C	2 (a) (ii)	KU	32	17	17	41	32*	9
12	C	2 (b) (i)	PS	81	41	6	7	81*	6
13	B	2 (b) (i)	KU	78	37	4	78*	3	15
14	B	2 (c) (i)	PS	40	40	20	40*	22	18
15	A	2 (c) (i)	PS	86	33	86*	5	2	7
16	D	2 (e) (i)	KU	79	38	4	8	10	79*
17	C	2 (e) (ii)	KU	51	14	41	4	51*	3
18	D	2 (e) (ii)	KU	40	33	25	23	12	40*
19	B	2 (e) (iii)	KU	57	28	12	57*	13	17
20	C	2 (e) (iii)	PS	49	37	26	20	49*	4
21	A	3 (a) (i)	PS	60	30	60*	12	22	6
22	B	3 (a) (i)	PS	74	36	10	74*	10	6
23	D	3 (a) (i/iii)	PS	53	40	27	12	8	53*
24	A	3 (b) (i)	KU	88	30	88*	5	3	4
25	D	3 (b) (v)	KU	90	29	2	2	7	90*
26	D	3 (c) (i/iii)	KU	85	24	4	5	6	85*
27	B	3 (c) (iii)	PS	63	13	2	63*	34	1
28	D	3 (c) (iv)	PS	56	40	13	20	10	56*
29	C	3 (c) (v)	KU	86	15	2	4	86*	8
30	C	3 (c) (v)	PS	64	34	8	13	64*	16



Chemistry Higher 2011

Section A

Number of persons in test : 10,289
 Average test score : 25.42
 Average facility value : 63.55
 Reliability : 0.85

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option			
						A	B	C	D
1	D	Standard Grade	PS	86	29	3	6	5	86*
2	A	Standard Grade	KU	56	35	56*	10	16	18
3	A	Standard Grade	PS	62	38	62*	13	14	11
4	D	Standard Grade	PS	44	22	12	15	29	44*
5	B	1 (e) (i)	KU	77	39	15	77*	4	3
6	D	1 (a) (ii)	KU	70	38	9	13	8	70*
7	B	1 (a) (iii)	PS	53	42	15	53*	15	17
8	C	1 (a) (iv)	PS	52	24	7	23	52*	19
9	C	1 (b) (i)	PS	62	40	11	17	62*	10
10	A	1 (b) (ii)	KU	72	27	72*	13	5	10
11	C	1 (c)	KU	87	26	3	5	87*	4
12	C	1 (d) (i)	PS	80	31	6	3	80*	11
13	A	1 (d) (iv)	PS	75	12	75*	17	2	5
14	D	1 (e) (i)	PS	58	47	11	24	7	58*
15	C	1 (e) (i)	PS	61	44	11	8	61*	19
16	D	1 (e) (iii)	PS	49	46	9	16	26	49*
17	D	2 (a) (i)	KU	87	31	4	4	5	87*
18	A	2 (a) (ii)	KU	96	19	96*	3	0	0
19	C	2 (b) (i)	PS	61	36	8	19	61*	12
20	B	2 (b) (ii)	KU	71	43	6	71*	6	17
21	B	2 (b) (iii)	PS	59	40	17	59*	5	19
22	A	2 (c) (i)	KU	62	40	62*	7	16	15
23	C	2 (c) (ii)	PS	47	34	17	27	47*	8
24	B	2 (c) (iii)	PS	44	36	10	44*	27	19
25	D	2 (d)	KU	79	41	3	14	4	79*
26	D	2 (e) (i)	KU	57	11	12	6	25	57*
27	B	2 (e) (i)	KU	49	22	47	49*	2	2
28	B	2 (e) (i)	PS	55	21	18	55*	17	10
29	D	2 (e) (ii)	KU	82	27	2	7	8	82*
30	C	2 (f) (ii)	KU	65	33	3	1	65*	30
31	B	3 (a)	PS	89	18	3	89*	3	6
32	D	3 (b)	PS	51	52	10	23	17	51*
33	D	3 (c) (i)	PS	40	31	16	27	17	40*
34	A	3 (c) (ii)	PS	48	29	48*	16	19	17
35	B	3 (d) (i/ii)	PS	64	14	18	64*	8	10
36	C	3 (d) (iii)	KU	45	35	17	12	45*	24
37	C	3 (e) (i)	KU	74	40	9	13	74*	5
38	A	3 (e) (ii)	KU	56	36	56*	15	17	12
39	B	3 (e) (iii)	PS	54	38	13	54*	13	21
40	A	3 (f) (iii)	PS	65	14	65*	5	22	8



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*



Human Biology Higher 2011

Section A

Number of persons in test : 4,274
 Average test score : 18.81
 Average facility value : 62.71
 Reliability : 0.76

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option			
						A	B	C	D
1	C	1 b 2 (i)	PS3	84	30	10	1	84*	5
2	A	1 b 2 (ii)	KU	60	29	60*	16	9	15
3	D	1 d 1 (iii)	KU	60	39	17	10	13	60*
4	A	1 e (ii)	KU	76	38	76*	14	2	8
5	B	1 e (iv)	KU	86	18	6	86*	3	5
6	D	1 f 2 (iv)	PS3	69	38	16	4	10	69*
7	B	1 c (v)	PS4	32	11	7	32*	48	13
8	B	1 f 2 (i)	PS3	73	25	12	73*	4	11
9	C	2 a 1 (v)	PS3	49	35	12	14	49*	24
10	D	1 f 1 (vi)	PS3	40	31	3	47	9	40*
11	C	2 a (iii)	PS6	65	25	8	10	65*	16
12	A	2 a (ii)	KU	60	28	60*	10	18	12
13	A	2 b (i)	KU	14	7	14*	50	28	8
14	A	2 b (i)	KU	56	35	56*	23	10	10
15	C	2 c (ii)	KU	68	23	10	10	68*	12
16	B	2 c (ii)/ 2 d (ii)	KU	85	35	2	85*	11	2
17	A	2 c (ii/iii)	KU	41	26	41*	14	21	23
18	C	2 d (i)	KU	81	23	6	7	81*	6
19	B	3 a 4 (i)	PS7	72	32	21	72*	4	3
20	C	1 c (iv)/ 2 d (i)	KU	48	28	28	8	48*	15
21	D	2 e (iii)	KU	44	20	31	13	12	44*
22	A	2 e (iii)/ 2 f (iii)	KU	34	14	34*	3	62	0
23	B	2 f (iii)	KU	74	29	16	74*	9	2
24	D	2 f (iii)	KU	80	25	4	8	8	80*
25	D	2 e (i)	KU	72	39	5	20	3	72*
26	C	3 a (ii)	KU	57	25	14	17	57*	11
27	A	3 b 2 (iv)	KU	89	26	89*	1	3	7
28	B	3 b 2 (iii)	KU	88	22	4	88*	6	1
29	D	3 c 1 (ii)	PS1	79	27	5	6	10	79*
30	D	3 c 3 (ii)	KU	44	32	6	4	46	44*



Mathematics Higher 2011

Section A

Number of persons in test : 20,545
 Average test score : 27.13
 Average facility value : 67.84
 Reliability : 0.72

Item	Key	Content Area	Fac	Disc	% Choosing option			
					A	B	C	D
1	C	G 20	89	15	4	5	89*	3
2	B	G 20	78	26	4	78*	14	4
3	D	A 3	85	25	4	2	9	85*
4	D	C 4	75	44	8	7	9	75*
5	A	A 5	85	37	85*	4	4	6
6	C	G 11	89	32	8	1	89*	2
7	D	A 21	89	24	2	6	3	89*
8	A	G 20	81	39	81*	4	9	6
9	B	A 17	64	6	4	64*	5	28
10	D	T 7 / T 3	65	42	12	7	16	65*
11	D	C 13	89	36	5	2	4	89*
12	C	T 9	71	41	19	6	71*	3
13	C	C 20	58	27	27	8	58*	6
14	B	G 26	49	39	37	49*	7	7
15	B	G 24	66	17	18	66*	6	9
16	A	C 13 / C 14	39	25	39*	40	12	9
17	A	A 19	50	32	50*	7	34	7
18	C	A 16	60	35	27	8	60*	5
19	C	A 21	40	16	8	3	40*	49
20	D	A 1	34	22	13	16	37	34*



Physics Intermediate 1 2011

Section A

Number of persons in test : 2,676
 Average test score : 12.52
 Average facility value : 62.60
 Reliability : 0.70

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option				
						A	B	C	D	E
1	A	1.1.6	KU	88	17	88*	0	0	4	6
2	B	1.2.3	KU	91	25	2	91*	1	1	4
3	E	1.3.4	KU	75	33	4	3	16	2	75*
4	C	2.1.2	KU	84	27	6	3	84*	2	4
5	C	2.1.4/9	KU	37	27	2	27	37*	16	19
6	D	2.2.3	KU	66	34	21	4	4	66*	6
7	B	2.2.1	KU	96	22	1	96*	0	2	0
8	B	3.1.7/8	PS	44	27	18	44*	16	18	4
9	D	3.1.7/9/10	PS	34	22	17	35	12	34*	1
10	B	4.3.1/2	KU	75	31	3	75*	12	4	5
11	E	4.3.3/4	PS	66	30	4	2	9	19	66*
12	C	4.4.1	KU	19	-1	12	16	19*	17	35
13	E	4.4.4	KU	42	33	21	23	3	10	42*
14	B	5.1.8	KU	89	27	1	89*	2	7	1
15	C	5.1.10	PS	89	24	1	2	89*	4	3
16	A	5.1.11	PS	29	22	29*	31	13	15	12
17	E	5.3.2/3	KU	72	20	1	6	5	16	72*
18	E	6.1.4/5	PS	38	35	1	3	4	53	38*
19	D	6.1.10	KU	51	40	17	4	4	51*	23
20	A	6.1.8	KU	66	35	66*	20	5	3	5



Physics Intermediate 2 2011

Section A

Number of persons in test : 4,049
 Average test score : 13.32
 Average facility value : 66.62
 Reliability : 0.77

Item	Key	Content Area	Ability	Fac	Disc	% Choosing option				
						A	B	C	D	E
1	D	1.1.6	PS	89	20	0	4	1	89*	5
2	B	1.1.11/13	PS	82	36	3	82*	12	1	2
3	E	1.3.3/12	PS	81	38	4	3	8	4	81*
4	D	1.3.8/10	PS	82	33	1	6	7	82*	4
5	E	2.1.5	KU	96	20	1	0	0	3	96*
6	B	2.1.13	PS	52	20	10	52*	25	8	5
7	A	2.1.17	KU	68	43	68*	15	7	8	2
8	E	2.2.9/10/11	KU	31	42	13	5	2	48	31*
9	B	2.3.2/3	KU	85	24	6	85*	4	2	3
10	A	2.4.12	KU	79	32	79*	2	9	5	5
11	D	2.4.14/15	KU	61	39	6	2	6	61*	24
12	B	3.1.5	PS	54	37	6	54*	28	6	6
13	B	3.1.6	KU	66	26	2	66*	18	12	2
14	D	3.2.2/5	KU	52	30	3	21	6	52*	17
15	E	3.3.1	PS	71	35	2	6	3	17	71*
16	C	3.2.7/8	PS	49	30	8	10	49*	11	22
17	C	4.2.1/4	KU	69	39	5	16	69*	6	4
18	D	4.3.4	KU	46	32	6	4	2	46*	42
19	A	4.4.2	KU	55	49	55*	4	19	15	6
20	A	4.4.4	KU	64	39	64*	4	1	4	26



Physics Higher 2011

Section A

Number of persons in test : 9,429
 Average test score : 14.88
 Average facility value : 74.38
 Reliability : 0.74

Item	Key	Content Area	Ability	% Choosing option						
				Fac	Disc	A	B	C	D	E
1	C	1.1.3	KU	93	23	2	1	93*	2	1
2	E	1.2.3	PS	77	41	6	12	3	2	77*
3	C	1.3.2/3	PS	70	33	3	2	70*	12	13
4	A	1.4.5	PS	62	38	62*	12	4	13	8
5	C	1.5.7	PS	77	22	11	2	77*	7	3
6	D	1.5.9	KU	83	23	4	2	6	83*	5
7	A	1.6.3	PS	40	36	40*	28	2	14	16
8	E	2.1.5	KU	82	22	5	10	2	1	82*
9	C	2.1.4	PS	87	34	2	4	87*	6	1
10	B	2.1.15	PS	77	14	3	77*	7	10	2
11	B	2.2.1	PS	53	38	8	53*	29	8	2
12	A	2.2.2	PS	89	24	89*	6	2	2	1
13	D	4.2.11	PS	70	31	2	6	15	70*	5
14	E	2.3.11	PS	59	35	7	20	6	8	59*
15	D	3.1.9	PS	61	37	4	26	4	61*	5
16	B	3.3.3	KU	80	38	3	80*	11	4	1
17	D	3.3.20	KU	69	33	10	3	7	69*	11
18	A	3.3.27	KU	73	32	73*	11	4	3	10
19	B	3.4.3	PS	90	29	2	90*	6	1	1
20	A	3.5.15	KU	95	23	95*	2	1	1	0



Scottish Qualifications Authority

Guidance on interpreting the information given in the Data Booklet

1 **Item**

This is the number of the question in the question paper.

2 **Key**

This is the correct option for the question.

3 **Content Area**

This is the section shown in the appropriate published arrangement documents. It is appreciated that in the case of some items more than one content area might be considered appropriate.

4 **Ability**

An attempt has been made to classify each item according to the educational ability being tested although the limitations of this exercise are fully recognised. Two abilities are presently used: KU for Knowledge and Understanding and PS for Problem Solving. Please note that this information is not provided for Mathematics.

5 **Fac**

This is the facility value of the question; i.e. the fraction of learners in the sample choosing the correct option.

6 **Disc**

This is the Discrimination for an item. It is the ability of an item to tell high scoring and low scoring learners apart. The result ranges from -100 through 100 and a high value means that able learners (high total test score) tend to answer the question correctly and learners with a low total test score tend to answer the question incorrectly. The item is then said to be consistent with the test. With zero Discrimination there is no relationship between the performance on the item and the performance on the test as a whole. A negative Discrimination means able learners tend to answer the item incorrectly and persons with a low total test score tend to answer the items correctly.

7 **Percentage choosing option**

This shows, for each option, the percentage of learners selecting it. Percentages have been corrected to the nearest whole number. Correct options are asterisked.