



Objective Tests 2007 Data Booklet



Biology Intermediate 1 2007

Section A

Number of persons in test : 5010
 Average test score : 16.22
 Average facility value : 64.89
 Reliability : 0.70

Item	Key	Content Area	Ability	Fac	Disc	% choosing option			
						A	B	C	D
1	A	3 1 (iii)	KU	65	32	65*	12	18	5
2	C	3 3 (i)	KU	50	23	20	8	50*	21
3	C	3 1 (ii)	KU	49	36	18	12	49*	20
4	B	3 2 (ii)	KU	81	19	4	81*	5	9
5	C	3 3 (ii)	KU	74	23	5	14	74*	7
6	C	3 2 (i)	KU	48	22	20	13	48*	18
7	A	3 1 (i)	PS5	73	31	73*	8	8	11
8	A	3 2 (ii)	PS3	28	6	28*	39	17	16
9	C	1 4 (iv)	PS6	86	24	6	3	86*	3
10	D	1 1 (ii)	KU	54	28	13	17	15	54*
11	C	1 4 (iii)	KU	82	17	12	4	82*	2
12	B	1 2 (iv)	KU	80	12	2	80*	4	13
13	D	1 3 (iii)	PS1	93	11	1	2	4	93*
14	B	1 4 (i)	KU	55	29	5	55*	20	20
15	D	1 2 (iii)	KU	82	23	2	6	10	82*
16	A	1 4 (ii)	PS	66	25	66*	10	13	11
17	D	1 2 (ii)	PS5	80	27	5	8	7	80*
18	A	2 1 (i)	KU	48	19	48*	7	13	33
19	A	2 3 (ii)	PS6	92	28	92*	3	2	3
20	B	2 1 (iv)	KU	30	33	15	30*	19	35
21	D	2 2 (iv)	KU	46	28	22	16	15	46*
22	D	2 2 (ii)	PS	56	27	5	26	13	56*
23	B	2 1 (ii)	KU	48	29	1	48*	22	30
24	B	2 1 (iv)	KU	79	31	5	79*	11	3
25	A	2 4 (i)	PS	78	31	78*	9	10	2



Biology Intermediate 2 2007

Section A

Number of persons in test : 6566
 Average test score : 17.41
 Average facility value : 69.64
 Reliability : 0.73

Item	Key	Content	Area	Ability	Fac	Disc	% choosing option			
							A	B	C	D
1	C	1 (a)	(i)	KU	93	19	3	2	93*	1
2	D	1 (a)	(ii)	KU	78	18	7	10	5	78*
3	A	1 (a)	(iii)	KU	86	16	86*	1	13	1
4	C	1 (a)	(iii)	PS6	67	29	21	8	67*	3
5	B	2 (a)	1 (ii)	PS3	85	30	7	85*	4	3
6	C	1 (d)	(ii)	KU	46	31	25	12	46*	17
7	D	1 (d)	2 (ii)	KU	93	25	1	2	4	93*
8	B	1 (a)	(iii)	KU	61	27	16	61*	19	4
9	D	1 (b)	(iv)	PS6	69	29	24	2	4	69*
10	A	1 (e)	2 (i)	PS1	80	20	80*	18	1	1
11	A	2 (a)	1 (ii)	PS6	72	30	72*	12	9	7
12	B	2 (a)	1 (ii)	KU	87	23	2	87*	5	6
13	D	2 (a)	2 (iii)	KU	80	29	5	10	5	80*
14	B	2 (a)	2 (ii)	PS3	55	27	34	55*	8	2
15	B	2 (b)	2 (iv)	KU	77	31	5	77*	7	10
16	D	2 (b)	2 (v)	PS3	83	25	2	2	14	83*
17	C	3 (a)	2 (iii)	KU	53	30	12	28	53*	7
18	A	3 (a)	1 (iv)	KU	87	26	87*	8	4	1
19	D	3 (a)	1 (iii)	PS5	80	30	3	8	9	80*
20	A	3 (a)	2 (iv)	KU	47	20	47*	37	12	3
21	D	3 (a)	1 (i)	PS3	47	31	5	31	17	47*
22	B	3 (b)	(iv)	KU	48	35	27	48*	9	15
23	C	3 (c)	1 (ii)	KU	52	31	18	16	52*	13
24	C	3 (c)	3 (iii)	KU	51	22	28	19	51*	2
25	B	3 (c)	3 (ii)	PS6	64	27	20	64*	14	3



Biology Higher Level 2007

Section A

Number of persons in test : 9185
 Average test score : 20.24
 Average facility value : 67.47
 Reliability : 0.78

Item	Key	Content Area	Ability	Fac	Disc	% choosing option			
						A	B	C	D
1	A	1 (d) (iv)	KU	82	34	82*	8	6	4
2	D	1 (d) 1 (ii)	KU	64	34	8	2	26	64*
3	B	1 (a) (ii)	KU	61	25	25	61*	12	2
4	D	1 (a) (ii)	KU	53	23	30	4	12	53*
5	D	1 (e) (i)	KU	48	38	20	12	20	48*
6	D	1 (b) 1 (i)	KU	61	22	19	15	4	61*
7	D	1 (f) (ii)	KU	77	28	1	2	20	77*
8	C	1 (b) 1 (i)	PS6	34	28	7	23	34*	35
9	A	1 (c) (v)	PS3	60	23	60*	9	28	3
10	A	1 (d) (ii)	PS3	93	25	93*	4	2	0
11	B	2 (a) 2 (i)	KU	77	33	4	77*	11	7
12	B	2 (a) 2 (iii)	KU	69	44	9	69*	13	8
13	A	2 (b) 2 (i)	KU	74	20	74*	11	12	4
14	A	2 (b) 2 (ii)	KU	59	34	59*	15	24	2
15	C	2 (c) 1a(iii)	KU	87	24	3	2	87*	8
16	A	2 (c) 1P(i)	KU	61	42	61*	23	11	5
17	D	2 (c) 3a(i)	KU	84	28	3	10	2	84*
18	C	2 (a) 1 (iii)	KU	80	26	5	8	80*	7
19	C	2 (a) 1 (ii)	PS6	62	23	4	23	62*	11
20	C	2 (a) 1 (iii)	PS3	78	30	4	9	78*	8
21	B	3 (b) (v)	KU	68	32	8	68*	8	16
22	A	3 (a) 1 (i)	KU	61	28	61*	7	4	28
23	D	3 (a) 1 (ii)	KU	75	30	6	7	12	75*
24	C	3 (a) 1 (iv)	PS7	51	16	32	11	51*	5
25	B	3 (b) (iv)	KU	81	27	6	81*	4	8
26	C	3 (a) 4 (i)	KU	70	36	8	6	70*	16
27	B	3 (a) 3 (ii)	KU	91	25	3	91*	2	3
28	C	2 (c) 1 (i)	PS3	40	28	38	4	40*	18
29	D	3 (a) 3 (ii)	PS6	54	37	3	11	31	54*
30	B	3 (a) 4 (i)	PS6	67	35	17	67*	7	8



Biology Advanced Higher

Section A

Number of persons in test : 1913
 Average test score : 16.87
 Average facility value : 67.48
 Reliability : 0.69

Item	Key	Content	Area	Ability	Fac	Disc	% choosing option			
							A	B	C	D
1	C	1 (a)	(i)	KU	88	22	1	5	88*	6
2	C	1 (a)	(ii)	PS3	71	27	9	10	71*	10
3	D	1 (b)	(i)	KU	73	41	11	11	4	73*
4	A	1 (b)	(iii)	KU	82	33	82*	8	4	6
5	C	1 (b)	(i)	PS3	52	17	9	15	52*	24
6	C	1 (b)	(iv)	KU	57	31	12	13	57*	17
7	B	1 (b)	(iv)	PS3	47	39	6	47*	43	4
8	A	1 (c)	(iii)	KU	72	38	72*	12	14	2
9	D	1 (c)	(i)	KU	52	37	23	15	10	52*
10	A	1 (c)	(i)	KU	81	27	81*	6	7	6
11	D	1 (c)	(i)	PS	48	15	1	23	28	48*
12	B	1 (d)	(iv)	KU	95	17	0	95*	1	3
13	C	2 (a)	1 (i)	KU	92	14	5	1	92*	2
14	A	2 (a)	1 (ii)	KU	80	3	80*	4	3	14
15	B	2 (a)	1 (i)	PS7	51	24	2	51*	34	13
16	A	2 (a)	2 (ii)	KU	72	30	72*	8	14	7
17	B	2 (a)	2 (ii)	KU	84	28	8	84*	4	4
18	D	2 (c)	(ii)	PS3	75	34	4	6	15	75*
19	B	2 (b)	1 (iii)	KU	28	16	13	28*	28	31
20	D	2 (b)	1 (ii)	PS	47	17	15	13	25	47*
21	A	2 (b)	2	KU	94	19	94*	5	0	0
22	D	2 (c)	(ii)	KU	65	21	18	9	8	65*
23	C	2		PS	78	14	4	4	78*	13
24	B	2 (c)	(iii)	KU	51	18	7	51*	6	36
25	B	2 (c)	(iv)	KU	50	17	40	50*	8	3



Biotechnology Intermediate 2

Section A

Number of persons in test : 76
 Average test score : 14.84
 Average facility value : 59.37
 Reliability : 0.79

Item	Key	Content	Area	Ability	Fac	Disc	% choosing option			
							A	B	C	D
1	B	1 (a)	(i)	KU	33	2	17	33*	12	38
2	A	1 (b)	(v)	KU	74	38	74*	14	1	11
3	D	1 (b)	(iv)	KU	49	60	7	8	37	49*
4	A	1 (a)	(i)	KU	46	45	46*	5	8	39
5	B	2 (b)	(i)	PS	38	19	22	38*	12	28
6	C	1 (b)	(i)	KU	54	19	20	21	54*	5
7	D	1 (b)	(i)	PS	58	35	9	5	28	58*
8	C	1 (b)	(v)	KU	38	28	21	13	38*	28
9	C	2 (a)	(iv)	KU	89	24	8	3	89*	0
10	B	1 (b)	(ii)	PS	68	7	0	68*	9	22
11	A	1 (b)	(ii)	PS	67	45	67*	13	13	7
12	A	1 (b)	(i)	PS	32	21	32*	8	12	47
13	D	1 (b)	(iv)	KU	55	31	11	24	9	55*
14	C	1 (c)	(i)	KU	68	32	18	4	68*	8
15	B	1 (a)	(iii)	KU	54	44	14	54*	13	17
16	C	1 (c)	(ii)	KU	79	27	3	17	79*	0
17	B	1 (c)	(ii)	KU	59	11	11	59*	26	3
18	D	1 (c)	(i)	KU	78	51	7	7	8	78*
19	B	1 (b)	(ii)	PS	62	37	12	62*	18	7
20	C	3 (c)	(ii)	KU	41	29	9	13	41*	36
21	B	3 (b)	(ii)	KU	49	51	25	49*	16	9
22	B	3 (a)		PS	62	42	9	62*	14	13
23	A	3 (c)	(i)	KU	76	20	76*	12	5	5
24	C	3 (a)	(iii)	PS	84	42	4	5	84*	5
25	B	1 (b)		PS	71	46	20	71*	7	1



Biotechnology Higher Level 2007

Section A

Number of persons in test : 47
 Average test score : 19.81
 Average facility value : 66.03
 Reliability : 0.76

Item	Key	Content	Area	Ability	Fac	Disc	% choosing option			
							A	B	C	D
1	B	1 (a)	(iii)	KU	89	15	9	89*	0	2
2	D	1 (b) 1	(ii)	KU	53	40	28	17	2	53*
3	D	1 (b) 2	(ii)	PS3	85	-10	6	0	9	85*
4	D	1 (b) 1	(iv)	PS1	49	41	2	36	13	49*
5	A	1 (b) 1	(iii)	KU	83	9	83*	2	2	13
6	C	1 (b) 1	(iii)	KU	74	11	11	6	74*	9
7	B	1 (b) 3	(v)	PS1	81	15	9	81*	6	4
8	C	1 (c)	(ii)	KU	77	20	6	13	77*	4
9	D	1 (d)	(ii)	PS1	0	0	0	100	0	0*
10	B	1 (b) 3	(i)	PS3	60	38	13	60*	28	0
11	C	1 (b) 3	(ii)	KU	55	78	2	36	55*	6
12	C	1 (d)	(iii)	KU	79	56	6	15	79*	0
13	C	1 (d)	(iv)	KU	45	-2	32	21	45*	2
14	B	2 (a) 1	(i)	PS6	74	52	4	74*	6	15
15	A	2 (a) 2	(i)	KU	81	12	81*	2	15	2
16	C	2 (a) 2	(ii)	PS6	74	24	9	15	74*	2
17	B	2 (a) 2	(iii)	PS3	53	9	13	53*	26	9
18	A	2 (a) 2	(iii)	KU	66	36	66*	11	19	4
19	D	2 (b) 1	(i)	KU	74	37	9	2	15	74*
20	D	2 (b) 2	(i)	KU	57	23	15	23	4	57*
21	D	3 (a) 2	(i)	KU	72	19	0	23	4	72*
22	A	3 (a) 2	(ii)	KU	70	9	70*	15	6	9
23	B	3 (a) 4	(ii)	KU	91	36	0	91*	0	9
24	A	3 (a) 4	(ii)	PS7	26	31	26*	28	26	21
25	B	2 (a) 2	(ii)	PS1	26	7	36	26*	34	4
26	C	3 (a) 4	(iii)	KU	57	54	40	0	57*	2
27	B	3 (a) 5	(i)	KU	81	52	2	81*	13	4
28	A	3 (b) 2	(ii)	KU	94	11	94*	4	0	2
29	D	3 (b) 2	(iii)	KU	87	29	0	0	13	87*
30	A	3 (b) 3	(i)	KU	66	30	66*	15	11	9



Chemistry Intermediate 1 2007

Section A

Number of persons in test : 2417
 Average test score : 12.53
 Average facility value : 62.67
 Reliability : 0.69

Item	Key	Content	Area	Ability	Fac	Disc	% choosing option				
							A	B	C	D	
1	C	1	(c)	(ii)	KU	47	34	14	16	47*	23
2	B	1	(c)	(iii)	PS	27	25	12	27*	43	18
3	B	1	(a)	(ii)	KU	76	28	12	76*	5	6
4	A	1	(b)	(ii)	PS	80	29	80*	6	6	8
5	D	1	(b)	(iii)	KU	80	25	5	6	9	80*
6	C	1	(a)	(i)	PS	43	19	10	16	43*	31
7	A	2	(b)	(ii)	KU	75	33	75*	13	7	5
8	D	2	(c)	(i)	KU	75	27	5	5	15	75*
9	B	2	(c)	(i)	KU	85	28	2	85*	6	8
10	A	2	(c)	(ii)	KU	48	29	48*	7	6	39
11	B	2	(a)	(ii)	PS	33	11	14	33*	23	29
12	D	2	(d)	(ii)	KU	73	30	17	3	6	73*
13	B	2	(d)	(i)	KU	74	23	4	74*	9	12
14	A	2	(d)	(iii)	PS	81	30	81*	7	9	2
15	D	3	(b)	(i)	KU	62	30	16	14	8	62*
16	C	3	(c)	(iii)	KU	81	24	2	14	81*	3
17	B	3	(c)	(v)	PS	28	19	11	28*	16	45
18	D	3	(c)	(v)	PS	44	12	32	9	14	44*
19	A	3	(c)	(vi)	KU	54	35	54*	5	25	15
20	C	3	(c)	(vi)	KU	86	35	1	3	86*	9



Chemistry Intermediate 2 2007

Section A

Number of persons in test : 3696
 Average test score : 20.68
 Average facility value : 68.93
 Reliability : 0.81

Item	Key	Content Area	Ability	Fac	Disc	% choosing option			
						A	B	C	D
1	B	1 (a) (i)	PS	92	21	3	92*	4	1
2	D	1 (a) (ii)	KU	74	17	13	2	12	74*
3	A	1 (a) (ii)	KU	79	22	79*	10	9	2
4	D	1 (c) (iii)	KU	65	44	6	18	11	65*
5	C	1 (a) (ii)	PS	68	29	24	4	68*	4
6	A	1 (d) (ii)	PS	79	31	79*	9	7	6
7	B	1 (d) (iii)	KU	78	29	9	78*	8	4
8	B	2 (a) (ii)	KU	71	30	17	71*	9	4
9	D	2 (b) (i)	PS	76	38	4	9	11	76*
10	D	2 (b) (ii)/(iii)	KU	64	39	1	7	27	64*
11	A	2 (b) (iii)	KU	66	44	66*	3	3	28
12	B	2 (c) (i)	PS	82	31	9	82*	3	6
13	C	2 (d) (i)	KU	54	25	7	11	54*	28
14	B	2 (d) (ii)	PS	00	-1	0	100*	0	0
15	D	2 (e) (i)	KU	71	39	8	7	14	71*
16	C	2 (e) (iii)	KU	66	42	13	13	66*	8
17	B	2 (e) (iii)	KU	52	43	16	52*	27	5
18	B	3 (a) (i)	PS	76	25	11	76*	10	3
19	D	3 (a) (i)	PS	77	34	4	15	4	77*
20	A	3 (a) (i)	KU	85	37	85*	4	8	3
21	B	3 (a) (ii)	PS	69	29	4	69*	7	19
22	C	3 (b) (i)	KU	54	25	16	14	54*	16
23	C	3 (b) (iii)	KU	71	24	12	5	71*	12
24	D	3 (b) (iv)	PS	62	45	14	14	8	62*
25	A	3 (b) (v)	KU	52	30	52*	8	5	35
26	B	3 (c) (i)	KU	50	34	6	50*	27	17
27	C	3 (c) (i)	PS	90	26	2	5	90*	3
28	B	3 (c) (ii)	PS	47	27	30	47*	11	12
		1 (d) (iv)							
29	A	3 (c) (iv)	PS	53	25	53*	16	21	10
30	D	3 (c) (v)	KU	46	41	25	22	7	46*



Chemistry Higher Level 2007

Section A

Number of persons in test : 9470
 Average test score : 26.45
 Average facility value : 66.11
 Reliability : 0.86

Item	Key	Content Area	Ability	Fac	Disc	% choosing option			
						A	B	C	D
1	B	Standard Grade	KU	63	28	12	63*	6	19
2	A	Standard Grade	KU	84	38	84*	3	6	6
3	D	Standard Grade	PS	59	39	9	11	19	59*
4	C	1 (a) (i)	PS	86	31	8	3	86*	2
5	C	1 (b) (i)	KU	68	26	4	23	68*	4
6	B	1 (b) (ii)	KU	78	27	12	78*	8	2
7	C	1 (c)	KU	70	32	14	13	70*	3
8	A	1 (d) (i)	KU	53	36	53*	11	10	26
9	D	1 (d) (iv)	KU	58	39	11	15	16	58*
10	A	1 (d) (iii)	KU	63	39	63*	25	5	6
11	C	1 (d)	PS	26	13	26	27	26*	21
12	B	1 (d) (ii)	KU	68	35	18	68*	8	6
13	C	1 (e)	KU	55	28	19	18	55*	8
14	A	1 (e) (i)	PS	39	36	39*	18	27	16
15	B	1 (e) (i)	PS	68	45	21	68*	4	7
16	C	1 (e)	PS	56	42	19	13	56*	11
17	D	2 (b) (i)	PS	50	33	7	16	27	50*
18	A	2 (a) (i)	KU	80	35	80*	7	6	6
19	A	2 (b) (ii)	KU	71	44	71*	12	11	5
20	C	2 (c)	PS	66	40	11	16	66*	7
21	C	2 (c)	PS	65	38	10	14	65*	11
22	B	2 (b) (i)	PS	76	32	8	76*	6	10
23	D	2 (d)	KU	86	30	5	5	3	86*
24	B	2 (e) (i)	KU	56	33	7	56*	15	22
25	D	2 (e) (i)	KU	60	34	23	7	10	60*
26	D	2 (f) (i)	KU	87	35	8	2	4	87*
27	C	2 (f) (ii)	KU	91	20	1	4	91*	4
28	B	2 (f) (ii)	PS	64	32	17	64*	15	3
29	A	3 (a)	KU	72	30	72*	5	4	19
30	C	3 (b)	PS	81	34	6	8	81*	4
31	C	3 (c) (ii)	KU	82	28	12	0	82*	5
32	B	3 (c) (ii)	PS	80	41	11	80*	3	6
33	D	3 (d) (ii)	PS	67	23	11	13	8	67*
34	C	3 (d) (i)	PS	73	38	15	3	73*	9
35	A	3 (d) (i)	PS	45	49	45*	17	7	32
36	B	3 (d)	PS	61	35	16	61*	19	4
37	D	3 (e) (i)	KU	55	38	16	10	17	55*
38	A	3 (e)	KU	55	37	55*	22	12	11
39	C	3 (f) (i)	PS	57	29	13	9	57*	21
40	D	3 (f) (i)	KU	72	36	2	24	3	72*



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*



Human Biology Higher Level 2007

Section A

Number of persons in test : 3713
 Average test score : 20.01
 Average facility value : 66.69
 Reliability : 0.75

Item	Key	Content Area	Ability	Fac	Disc	% choosing option			
						A	B	C	D
1	C	1 (d) (iv)	KU	82	31	8	4	82*	6
2	C	1 (a) (i)	KU	55	38	31	3	55*	11
3	A	3 (a) 2 (ii)	PS7	84	29	84*	7	7	2
4	A	1	PS3	51	35	51*	17	23	8
5	D	1 (a) (ii)	KU	83	30	5	8	3	83*
6	B	1 (a) (ii)	PS3	51	29	3	51*	40	6
7	D	1 (b) 1 (ii)	KU	56	28	6	26	12	56*
8	D	1 (d) 1 (i)	KU	61	35	13	3	23	61*
9	B	1 (d) 2 (i)	KU	59	16	23	59*	16	2
10	B	1 (d) 2 (ii)	KU	81	23	6	81*	9	4
11	D	1 (e) (ii)	KU	75	19	3	13	9	75*
12	A	1 (e) (iv)	PS1	89	20	89*	4	5	1
13	A	1 (f) 1 (iv)	KU	39	6	39*	9	44	8
14	B	1 (f) 1 (iv)/(vi)	KU	68	35	6	68*	6	20
15	C	1 (f) 2 (i)	KU	70	25	18	4	70*	8
16	D	1 (f) 3 (ii)	KU	90	24	5	2	3	90
17	A	2 (f) (iii)	KU	98	12	98*	1	0	0
18	C	2 (d) (ii)	KU	49	19	8	9	49*	35
19	C	2 (c) (iii)	KU	48	31	9	16	48*	27
20	B	2 (e) (ii)	PS	61	20	20	61*	7	11
21	C	2 (e) (iii)	PS3	41	27	32	5	41*	21
22	D	3 (a) (ii)	KU	61	30	15	8	17	61*
23	B	3 (b) 1 (i)	PS1	61	19	31	61*	3	5
24	C	3 (b) 1 (iii)	KU	68	29	12	10	68*	10
25	C	3 (b) 2 (iii)	KU	67	37	14	1	67*	17
26	A	3 (b) 2 (iii)	PS5	81	14	81*	7	10	2
27	D	3 (c) 1 (i)	KU	78	26	12	6	4	78*
28	B	3 (c) 3 (ii)	KU	66	24	25	66*	5	4
29	A	3 (c) 3 (ii)	KU	44	30	44*	25	13	17
30	A	3 (c) 3 (ii)	KU	81	32	81*	7	8	4



Physics Intermediate 1 2007

Section A

Number of persons in test : 1963
 Average test score : 11.71
 Average facility value : 58.55
 Reliability : 0.72

Item	Key	Content Area	Ability	Fac	Disc	% choosing option				
						A	B	C	D	E
1	B	1.2.5	KU	34	23	11	34*	11	7	35
2	C	1.1.7	KU	83	18	9	4	83*	2	2
3	B	1.4.3/5/6	KU	47	25	6	47*	10	23	14
4	C	2.2.1	KU	75	29	4	5	75*	13	3
5	D	2.1.11	PS	35	25	13	10	35	35*	7
6	A	3.4.3	KU	45	37	45*	10	8	9	27
7	A	3.2.2	KU	92	19	92*	0	0	6	1
8	D	3.1.1	PS	20	23	31	2	46	20*	0
9	C	4.3.3	PS	63	31	3	7	63*	23	4
10	B	4.1.8	PS	47	34	10	47*	18	15	11
11	B	4.2.3	KU	76	23	5	76*	8	6	5
12	B	4.3.2	KU	79	31	1	79*	6	5	9
13	E	4.4.2	KU	52	34	18	1	2	27	52*
14	A	5.1.10/11/12	PS	65	28	65*	10	9	8	7
15	D	5.2.1	KU	83	24	2	2	10	83*	3
16	D	5.1.5	KU	50	37	9	16	5	50*	18
17	E	5.3.4	KU	66	35	8	9	6	11	66*
18	D	6.1.9	KU	37	36	20	17	18	37*	7
19	E	6.1.2	KU	86	25	7	1	3	2	86*
20	E	6.1.4/10	KU	36	35	22	18	10	14	36*



Physics Intermediate 2 2007

Section A

Number of persons in test : 3318
 Average test score : 12.13
 Average facility value : 60.66
 Reliability : 0.77

Item	Key	Content Area	Ability	Fac	Disc	% choosing option				
						A	B	C	D	E
1	E	1.1.8	KU	72	38	16	4	4	3	72*
2	B	1.2.16	KU	45	41	12	45*	13	28	3
3	E	1.3.6	KU	60	50	11	17	4	7	60*
4	B	1.2.21	KU	83	18	1	83*	9	6	1
5	A	1.3.2	KU	57	30	57*	22	5	10	6
6	B	1.2.17	PS	40	44	3	40*	51	4	2
7	C	2.1.6	KU	68	32	3	12	68*	9	7
8	D	2.1.8	PS	66	31	11	5	6	66*	11
9	B	2.1.14/15	PS	37	41	10	37*	18	12	22
10	D	2.4.16/17	PS	55	43	4	9	13	55*	18
11	D	2.4.2/12	KU	73	12	2	1	23	73*	1
12	C	2.3.1	KU	58	23	1	38	58*	2	1
13	B	1.3.12/2.2.3	PS	63	31	8	63*	20	6	2
14	A	2.1.10/2.4.9	PS+	43	35	43*	3	5	5	45
15	C	3.2.7/8	KU	48	27	5	28	48*	4	15
16	D	3.2.4	KU	89	22	7	2	1	89*	1
17	C	3.1.8	KU	41	35	8	5	41*	25	20
18	D	4.4.2	KU	79	26	3	1	12	79*	5
19	E	4.1.4	PS	64	40	8	15	3	10	64*
20	C	4.4.4	KU	69	32	10	5	69*	5	12



Physics Higher Level 2007

Section A

Number of persons in test : 8582
 Average test score : 12.85
 Average facility value : 64.24
 Reliability : 0.77

Item	Key	Content Area	Ability	Fac	Disc	% choosing option				
						A	B	C	D	E
1	D	1.1.3	KU	86	25	8	1	4	86*	1
2	C	1.1.2/1.2.3	PS	77	30	1	12	77*	2	7
3	B	1.3.3	PS	35	15	8	35*	10	40	7
4	D	1.4.1	KU	86	23	3	1	4	86*	6
5	A	1.4.6	PS	78	35	78*	12	3	3	3
6	C	1.4.10	PS+	62	34	5	23	62*	8	1
7	A	1.5.4	KU	72	23	72*	1	3	11	12
8	E	2.1.16/2.2.2	PS	82	31	1	1	4	12	82*
9	A	2.1.16	PS	70	41	70*	7	10	4	10
10	A	2.2.1/2	PS+	63	45	63*	26	3	4	4
11	E	2.2.3	KU	64	42	19	6	7	5	64*
12	C	2.4.1	PS	55	36	4	7	55*	6	28
13	D	2.4.3/2.2.4/5/6	PS	47	39	6	4	4	47*	40
14	A	3.1.3	KU	63	23	63*	8	3	8	17
15	E	3.2.7/11	KU	58	35	15	12	7	8	58*
16	C	3.1.10/2.1.14	PS+	45	34	24	21	45*	6	4
17	E	3.3.14/16	PS+	53	41	5	1	39	1	53*
18	D	3.3.30/31	KU	60	36	6	5	28	60*	1
19	B	3.4.1	KU	66	33	8	66*	10	13	2
20	B	3.5.15	KU	62	36	20	62*	2	11	5



Scottish Qualifications Authority

Notes for Guidance on Statistical Data on Objective Tests

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.

5 **Fac**

This is the facility value of the question; i.e. the fraction of candidates 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 candidates apart. The result ranges from -100 through 100 and a high value means that able candidates (high total test score) tend to answer the question correctly and candidates 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 candidates 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 candidates selecting it. Percentages have been corrected to the nearest whole number. Correct options are asterisked.