

MCQ EXAM SCANNING SERVICES INFORMATION BOOKLET



University of
South Australia

School of Pharmacy and Medical Sciences

Nutrition | Medical Science | Pharmacy | Food Sciences | Laboratory Medicine | Pharmaceutical Science | Nutrition | Medical Science | Pharmacy
| Food Sciences | Laboratory Medicine | Pharmaceutical Science | Nutrition | Medical Science | Pharmacy | Food Sciences | Laboratory
Medicine | Pharmaceutical Science | Nutrition | Medical Science | Pharmacy | Food Sciences | Laboratory Medicine | Pharmaceutical Science

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WHAT DO WE OFFER?

The School of Pharmacy and Medical Sciences is now in a position to offer the MCQ exam scanning service to other schools. The PMB-MCQ exam scanning service charge is \$220.00 per exam + \$0.15 per scanned Answer Sheet.

For this fee, the School of Pharmacy and Medical Sciences provides:

- Key Sheet
- Test Header Sheet
- MCQ Request Sheet
- Emailed Item Analysis Report
- Emailed Individual Test Result Report
- Emailed Individual Item Response Report
- Emailed Relative Frequency Distribution Report
- Emailed Absolute Frequency Distribution Report
- Emailed Test Score Distribution Report
- Emailed Excel Spreadsheet
- Clerical costs
- Set up
- Scanning of sheets
- Validation of scanned data

Answer sheets are charged by the sheet and therefore can be purchased independently and in larger lots if preferred.

Please note, sheets from other organisations cannot be processed through the PMB-MCQ service as each machine and software is designed specifically for the sheets of that organisation.

REPORTS EXPLAINED

Individual Test Results

This report lists raw score, percentage, and percentile for each individual taking the selected tests. Up to 10 subtests can be included in the report. Respondents are listed alphabetically by name. Mastery of each subtest can be included in the report.

Individual Item Response

This is a record of the responses each student made to every test question on the selected test or subtests. An answer key at the top of the report is followed by the test responses selected by each respondent and each respondent's score. Respondents are listed alphabetically by name. Mastery of each subtest can be included in the report.

Item Analysis

This report provides an analysis of how the test population answered each test question. For each possible response (1-5 or 1-10) for each question, it provides the number of people in the upper 25% and in lower 25% who marked the response, the total number and percentage of respondents who

selected that response, and the discrimination index. For each question, it provides the difficulty factor and weight. For the entire test, it reports the total weight, the number of respondents, number of respondents in the lower and upper 25%, number of test items, and the Kuder Richardson 20 and 21 statistics.

Relative Frequency Distribution

This provides a representation of the percentage of the total test population that achieved each score for a test or subtest. The report lists each possible test score, how many respondents achieved that score (frequency), the local percentile for each score, and a graph showing a set of asterisks each representing 2% of the test group.

Absolute Frequency Distribution

The report provides a graphic representation of the number of respondents that achieved each score for a test or subtest. The report lists each possible test score, how many respondents achieved that score (frequency), the local percentile for each score, and a graph showing a set of asterisks each representing 2% of the test group.

Test Score Distribution

This provides a comparison of raw scores and percentages against standard Z-Scores, T-Scores, and stanines.

Excel Spreadsheet

All results will be exported into an excel spreadsheet, providing the academic with a complete overview of all results and statistics.

Error Sheets

An error sheet is the result of an incorrectly filled out sheet being rejected by the MCQ machine. Examples of this can be that the person has not filled out the ovals correctly, has missed an oval, has used pen instead of a 2B pencil. Once the machine has rejected a sheet, the administrator operating the machine will have to find the error, rectify the problem and feed the sheet through the machine again. Due to the double handling this causes, error sheets will be calculated at \$0.30 per sheet.

More Information

For queries, please contact Katie Bowring: (08) 8302 2383 or katie.bowring@unisa.edu.au.

The information and pricing as listed in this booklet are correct at the time of printing. For the most up to date version of this booklet, please visit the School of Pharmacy and Medical Sciences' home page: <http://www.unisa.edu.au/pmbs/>

APPENDIX A: MCQ EXAM PROCESSING REQUEST



UNIVERSITY OF SOUTH AUSTRALIA
School of Pharmacy and Medical Sciences

UniSA

Staff Name			
Date Submitted			Date Required

Examination/Test Details	
Program Name	
Course Name	
Course Code (i.e. 013938)	
Test Name	
Number of Questions	
Number of Answer Sheets	

Exam Results Requests	
Please indicate your preference of result delivery by circling the options provided below: <i>EM = (Exam Results will be Emailed) HC = (Hard Copy of Exam Results will be Printed)</i>	
EM or HC	Individual Test Results <i>(Lists raw score, percentage, and percentile for each individual taking the selected tests)</i>
EM or HC	Individual Item Response <i>(Record of the responses each student made to every question on the selected test or subtests)</i>
EM or HC	Item Analysis <i>(Analysis of how the test population answered each question)</i>
EM or HC	Relative Frequency Distribution <i>(A graphic representation of the percentage of the total test population that achieved each score for the test)</i>
EM or HC	Absolute Frequency Distribution <i>(A graphic representation of the number of respondents that achieved each score for the test)</i>
EM or HC	Test Score Distribution <i>(Provides a comparison of raw scores and percentages against standard Z-Scores, T-Scores and stanines)</i>

Additional Information	

Exam Results Costing	Cost incurred	
Individual Test Results Individual Item Response Item Analysis Relative Frequency Distribution Absolute Frequency Distribution Test Score Distribution Key Sheet Test Header Sheet Clerical Charges Setup Validation of Scanned Data Excel Spreadsheet	\$220.00 Per Exam	
Generalised Answer Sheet	\$ 0.15 Per Sheet	
Error Sheet (see Appendix D)	\$ 0.30 Per Sheet	
Postage or Courier Cost (as required)	Variable	
Total:		

Please provide the following information (to be included on the invoice):

Organisation	
Cost Centre	
Account Name	
Approved by	
Position Title	
Date	
Signature	

Please return this form (along with answer sheets) to the Pharmacy School Office

Address: UniSA – School of Pharmacy and Medical Sciences
Attention: Katie Bowring
GPO Box 2471
Adelaide SA 5000

Facsimile: (08) 8302 2389

Email: katie.bowring@unisa.edu.au

APPENDIX C: REPORT EXAMPLES

Individual Test Results

Date Run: 04/11/2008
 Test Name: EARTHSYSTEMS QUIZ
 Instructor: All
 Scoring: Raw Score

Test Date: 04/10/2008
 Test ID: 101119
 Grade: All

Sort:
 Class:
 Select:

examSYSTEM In
 Page 1 of 9

Identification # Name	Subtest	Items	Mastery	Total	%ile
		30		30	
	RS	17		17	15
	%	57		57	
	RS	17		17	15
	%	57		57	
	RS	21		21	48
	%	70		70	
	RS	19		19	28
	%	63		63	
	RS	21		21	48
	%	70		70	
	RS	15		15	3
	%	50		50	
	RS	26		26	97
	%	87		87	
	RS	23		23	75
	%	77		77	
	RS	24		24	85
	%	80		80	
	RS	19		19	28
	%	63		63	
	RS	17		17	15
	%	57		57	
	RS	20		20	38
	%	67		67	
	RS	20		20	38
	%	67		67	
	RS	18		18	21
	%	60		60	
	RS	24		24	85
	%	80		80	
	RS	19		19	28

CARTER, PBC % 63 63

Number of Respondents: 148
 Number of Items: 30

Average Score: 20.53 Highest Score: 27
 Median Score: 21.00 Lowest Score: 11
 Std. Deviation: 3.55

Subtest Subtest Name #% Mastered Subtest Subtest Name # Mastered %

Test Score Distribution

examSYSTEM II®

Date Run: 04/11/2008
 Test Name: EARTHSYSTEMMS QUIZ
 Instructor: All
 Scoring: Raw Score

Test Date: 04/10/2008
 Test ID: 101119
 Grade: All
 Class: All

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Raw Score	%ile	Z-Score	T-Score	Stanine
30	100	2.67	76.65	9
29	100	2.38	73.84	9
28	100	2.10	71.03	9
27	99	1.82	68.21	9
26	97	1.54	65.40	9
25	92	1.26	62.59	8
24	85	0.98	59.77	7
23	75	0.70	56.96	6
22	61	0.41	54.14	6
21	48	0.13	51.33	5
20	38	-0.15	48.52	4
19	28	-0.43	45.70	4
18	21	-0.71	42.89	3
17	15	-0.99	40.08	3
16	11	-1.27	37.26	3
15	9	-1.56	34.45	2
14	7	-1.84	31.64	2
13	5	-2.12	28.82	2
12	3	-2.40	26.01	1
11	1	-2.68	23.19	1
10	0	-2.96	20.38	1
9	0	-3.24	17.57	1
8	0	-3.52	14.75	1
7	0	-3.81	11.94	1
6	0	-4.09	9.13	1
5	0	-4.37	6.31	1
4	0	-4.65	3.50	1
3	0	-4.93	0.69	1
2	0	-5.21	-2.13	1
1	0	-5.49	-4.94	1
0	0	-5.78	-7.76	1

Number of Respondents: 148
 Number of Items: 30

Average Score: 20.53
 Median Score: 21.00
 Std. Deviation: 3.55

Highest Score: 27
 Lowest Score: 11

Absolute Frequency Distribution

exam

Date Run: 07/04/2008 Test Date: 06/30/2000
 Test Name: SKILL ACQUISITION Test ID: D11594 Class: All
 Instructor: All Raw Score Grade: All Page 1

Score	Frequency	%ile	1	2	3	4	5
35	0	100					
34	0	100					
33	1	100 *					
32	2	99 **					
31	6	97 **					
30	2	95 **					
29	14	91 **					
28	11	85 **					
27	16	79 **					
26	17	71 **					
25	25	61 **					
24	21	50 **					
23	20	40 **					
22	15	31 **					
21	15	24 **					
20	13	17 **					
19	10	12 **					
18	8	7 **					
17	2	5 **					
16	4	3 **					
15	3	2 **					
14	1	1 *					
13	0	0					
12	0	0					
11	0	0					
10	0	0					
9	1	0 *					
8	0	0					
7	0	0					
6	0	0					
5	0	0					
4	0	0					
3	0	0					
2	0	0					
1	0	0					
0	0	0					

Number of Respondents: 207 Average Score: 23.79 Highest Score: 33
 Number of Items: 35 Median Score: 24.00 Lowest Score: 9
 Std. Deviation: 3.95

Note: Each "*" = 1 Respondent

Relative Frequency Distribution

Date Run: 07/04/2008
 Test Name: SKILL ACQUISITION
 Instructor: All
 Scoring: Raw Score

Test Date: 06/30/2000
 Test ID: 011594
 Grade: All
 Class: All

Score	Frequency	%ile	1	2	3	4	5	6	7	8	9	0
35	0	100	2	4	6	8	0	2	4	6	8	0
34	0	100	2	4	6	8	0	2	4	6	8	0
33	1	100	2	4	6	8	0	2	4	6	8	0
32	2	99	2	4	6	8	0	2	4	6	8	0
31	6	97 *	2	4	6	8	0	2	4	6	8	0
30	2	95	2	4	6	8	0	2	4	6	8	0
29	14	91 ***	2	4	6	8	0	2	4	6	8	0
28	11	85 ***	2	4	6	8	0	2	4	6	8	0
27	16	79 ****	2	4	6	8	0	2	4	6	8	0
26	17	71 ****	2	4	6	8	0	2	4	6	8	0
25	25	61 *****	2	4	6	8	0	2	4	6	8	0
24	21	50 *****	2	4	6	8	0	2	4	6	8	0
23	20	40 *****	2	4	6	8	0	2	4	6	8	0
22	15	31 ****	2	4	6	8	0	2	4	6	8	0
21	15	24 ****	2	4	6	8	0	2	4	6	8	0
20	13	17 ***	2	4	6	8	0	2	4	6	8	0
19	10	12 **	2	4	6	8	0	2	4	6	8	0
18	8	7 **	2	4	6	8	0	2	4	6	8	0
17	2	5	2	4	6	8	0	2	4	6	8	0
16	4	3 *	2	4	6	8	0	2	4	6	8	0
15	3	2 *	2	4	6	8	0	2	4	6	8	0
14	1	1	2	4	6	8	0	2	4	6	8	0
13	0	0	2	4	6	8	0	2	4	6	8	0
12	0	0	2	4	6	8	0	2	4	6	8	0
11	0	0	2	4	6	8	0	2	4	6	8	0
10	0	0	2	4	6	8	0	2	4	6	8	0
9	1	0	2	4	6	8	0	2	4	6	8	0
8	0	0	2	4	6	8	0	2	4	6	8	0
7	0	0	2	4	6	8	0	2	4	6	8	0
6	0	0	2	4	6	8	0	2	4	6	8	0
5	0	0	2	4	6	8	0	2	4	6	8	0
4	0	0	2	4	6	8	0	2	4	6	8	0
3	0	0	2	4	6	8	0	2	4	6	8	0
2	0	0	2	4	6	8	0	2	4	6	8	0
1	0	0	2	4	6	8	0	2	4	6	8	0
0	0	0	2	4	6	8	0	2	4	6	8	0

Number of Respondents: 207
 Number of Items: 35

Average Score: 23.79 Highest Score: 33
 Median Score: 24.00 Lowest Score: 9
 Std. Deviation: 3.95

Note: Each "*" = 2% of Respondents

Item Analysis

Date Run: 04/11/2008
 Test Name: EARTHSYSTEMMS QUIZ
 Instructor: All
 Scoring: Raw Score

Test Date: 04/10/2008
 Test ID: 101119
 Grade: All
 Class: All

Question		Upper Quartile	Lower Quartile	Total Count	Total %	Discrimination Index	Difficulty Factor	Weight
1	1*	15	7	41	28	0.2	0.277	1
	2	2	4	7	5	-0.1		
	3	11	13	53	36	-0.1		
	4	9	13	47	32	-0.1		
	5	0	0	0	0	0.0		
	Oth	0	0	0	0	0.0		
2	1*	37	36	145	98	0.0	0.980	1
	2	0	1	2	1	0.0		
	3	0	0	0	0	0.0		
	4	0	0	1	1	0.0		
	5	0	0	0	0	0.0		
	Oth	0	0	0	0	0.0		
3	1	0	0	0	0	0.0	0.716	1
	2	0	4	4	3	-0.1		
	3*	32	19	106	72	0.4		
	4	5	14	38	26	-0.2		
	5	0	0	0	0	0.0		
	Oth	0	0	0	0	0.0		
4	1	0	1	1	1	0.0	0.851	1
	2*	35	25	126	85	0.3		
	3	2	10	18	12	-0.2		
	4	0	1	3	2	0.0		
	5	0	0	0	0	0.0		
	Oth	0	0	0	0	0.0		
5	1	0	2	2	1	-0.1	0.912	1
	2	0	4	6	4	-0.1		
	3*	37	29	135	91	0.2		
	4	0	2	5	3	-0.1		
	5	0	0	0	0	0.0		
	Oth	0	0	0	0	0.0		
6	1	2	11	28	19	-0.2	0.655	1
	2	0	0	0	0	0.0		
	3*	32	20	97	66	0.3		
	4	3	6	23	16	-0.1		
	5	0	0	0	0	0.0		
	Oth	0	0	0	0	0.0		

Number of Respondents: 148
 Total in Upper Quartile: 37
 Total in Lower Quartile: 37

Number of Test Items: 30
 Kuder Richardson 20: 0.63
 Kuder Richardson 21: 0.50

Individual Item Response

Date Run: 07/04/2008
 Test Name: SKILL ACQUISITION
 Instructor: All
 Scoring: Raw Score

Test Date: 06/30/2000
 Test ID: 011594
 Grade: All

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 Sort: Student Name
 Class: All

Identification #
 Name

Question Number:	1	2	3	4	5
12345678901234567890123456789012345678901234567890					
Answer Key:	(1)	22414433434231343241232231414221222			
Score	25				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	..1.....3....13.2....1.2.343....			
Score	16				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	4.141....1..2...1.1442...44.213.2.13			
Score	22				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	4.1...1..4..2.4.2..4.2..1...13..1..			
Score	15				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	..1.1.123221.3...4.14.2..2..2233.41.			
Score	19				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	4.1.1.1..1.1...313223.....2.2...4.3			
Score	24				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	..1...1.2.1...2..2...14...4...34			
Score	24				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	..1..3..1.21.4.....4...1.3.....33			
Score	27				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	..1.....1.....22..4.....23.2....			
Score	21				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	..1.3....21.....2..43.3.14....32.31			
Score	25				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	..2.....2.12...11.43.....11			
Score	23				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)1.3..222..24..2...11.2..3			
Score	26				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)1....2.1...13.24.....3....3			
Score	22				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	3.....1..1....4.2.34..1.2.2.13....1			
Score	15				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	...4.*2.1...23121.14.2.414.433.*..3			
Score	29				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)	..1.....2.....24.1.....3.....			
Score	27				
Q#Item Responses	12345678901234567890123456789012345678901234567890				
	(1)231...1...2....1.....43.			

Key Symbols

* = Any Response Correct
 { } = Question Ignored
 1-9,0,? = Correct Response

Respondent Symbols

1-9,0,? = Wrong Answer
 . = Correct Answer
 * = Multiple
 - = Not Answered
 { } = Not Scored

Number of Respondents: 207

Average Score: 23.75
 Median Score: 24.00
 Highest Score: 33
 Lowest Score: 9
 Standard Deviation: 3.95