Biochem Exam 1

	Biserial	Total %	Upper %	Lower %
AVG	0.33	0.86	0.95	0.72
SD	0.11	0.10	0.06	0.17
MIN	0.05	0.57	0.66	0.20
MAX	0.51	1.00	1.00	0.99
Count If	10	3		

	Questions	
Total	70	<-- please confirm*
Majority	17	
Dropped	0	<-- please confirm*

*Faculty Note: Please confirm Total Questions and Dropped Questions

Biochem Exam 1

Question Analysis (Multiple Choice)

Exam Takers = 382 **KR20 = 0.87** **Stdev = 7.52** **Mean = 59.92 (85.61%)**
Median = 62.00 **Min = 21.00** **Max = 70.00** **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bise	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
	2 ✖	0.78	97.48%	52.38%	0.45 ✔	0.43	A	*299	11	31	23	18	0
						% Selected		78.27	2.88	8.12	6.02	4.71	0
						Point Biserial (rpb)		0.43	0.2	0.21	0.18	0.21	
	3 ✖	0.82	94.96%	66.67%	0.28 ✔	0.31	B	8	*313	15	6	39	1
						% Selected		2.09	81.94	3.93	1.57	10.21	0.26
						Point Biserial (rpb)		0.11	0.31	0.28	0.02	0.17	
	4 ✖	0.79	88.24%	70.48%	0.18 ✖	0.2	E	3	52	20	5	*302	0
						% Selected		0.79	13.61	5.24	1.31	79.06	0
						Point Biserial (rpb)		0.03	0.07	0.16	0.17	0.2	
	5 ❗	0.85	96.64%	65.71%	0.31 ✔	0.41	B	14	*325	7	28	8	0
						% Selected		3.66	85.08	1.83	7.33	2.09	0
						Point Biserial (rpb)		0.26	0.41	0.11	0.21	0.2	
	6 ❗	0.9	97.48%	77.14%	0.2 ✔	0.33	B	26	*344	10	0	2	0
						% Selected		6.81	90.05	2.62	0	0.52	0
						Point Biserial (rpb)		0.26	0.33	0.15	0	0.16	
	7 ❗	0.88	94.96%	78.10%	0.17 ❗	0.28	E	12	3	5	24	*338	0

Biochem Exam 1
Question Analysis (Multiple Choice)

Exam Takers = 382 **KR20 = 0.87** **Stdev = 7.52** **Mean = 59.92 (85.61%)**
Median = 62.00 **Min = 21.00** **Max = 70.00** **Total Pts = 70.00**

| Majority | Ques # | Correct Responses | | | Disc. Index | Point Bis | Correct Answ | Response Frequencies (*Indicates correct answer) | | | | | Unanswered |
		Diff(p)	Upper	Lower				A	B	C	D	E	
							% Selected	3.14	0.79	1.31	6.28	88.48	0
							Point Biserial (rpb)	0.1	0.29	0.11	0.15	0.28	
	8 ✓	0.92	98.32%	81.90%	0.16 ✓	0.33	C	4	19	*351	5	3	0
							% Selected	1.05	4.97	91.88	1.31	0.79	0
							Point Biserial (rpb)	0.16	0.23	0.33	0.15	0.08	
	9 ✗	0.72	89.92%	51.43%	0.38 ✓	0.34	B	29	*276	15	19	43	0
							% Selected	7.59	72.25	3.93	4.97	11.26	0
							Point Biserial (rpb)	0.25	0.34	0.15	0.08	0.12	
	10 ⚠	0.91	96.64%	81.90%	0.15 ⚠	0.27	D	7	1	15	*349	10	0
							% Selected	1.83	0.26	3.93	91.36	2.62	0
							Point Biserial (rpb)	0.08	0.08	0.16	0.27	0.18	
Majority	11 ✓	0.93	100.00%	80.95%	0.19 ✓	0.35	C	15	1	*356	2	8	0
							% Selected	3.93	0.26	93.19	0.52	2.09	0
							Point Biserial (rpb)	0.28	0.04	0.35	0.14	0.15	
	12 ✗	0.8	88.24%	76.19%	0.12 ✗	0.11	B	7	*306	4	9	56	0
							% Selected	1.83	80.1	1.05	2.36	14.66	0

Biochem Exam 1
Question Analysis (Multiple Choice)

Exam Takers = 382 **KR20 = 0.87** **Stdev = 7.52** **Mean = 59.92 (85.61%)**
Median = 62.00 **Min = 21.00** **Max = 70.00** **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bis	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
						Point Biserial (rpb)		0.05	0.11	0.23	0.05	0.02	
	13 ❗	0.88	94.96%	80.00%	0.15 ❌	0.14	A	*337	12	6	21	5	1
		% Selected						88.22	3.14	1.57	5.5	1.31	0.26
						Point Biserial (rpb)		0.14	0.09	0.05	0.11	0.03	
	14 ❗	0.87	96.64%	67.62%	0.29 ✔	0.47	B	7	*331	29	9	6	0
		% Selected						1.83	86.65	7.59	2.36	1.57	0
						Point Biserial (rpb)		0.19	0.47	0.31	0.28	0.08	
Majority	15 ✔	0.95	100.00%	86.67%	0.13 ✔	0.3	A	*364	1	1	7	9	0
		% Selected						95.29	0.26	0.26	1.83	2.36	0
						Point Biserial (rpb)		0.3	0.03	0.01	0.21	0.22	
Majority	16 ✔	0.98	100.00%	95.24%	0.05 ❌	0.09	C	3	5	*374	0	0	0
		% Selected						0.79	1.31	97.91	0	0	0
						Point Biserial (rpb)		0.04	0.08	0.09	0	0	
Majority	17 ✔	0.96	100.00%	86.67%	0.13 ✔	0.45	A	*365	6	5	4	2	0
		% Selected						95.55	1.57	1.31	1.05	0.52	0
						Point Biserial (rpb)		0.45	0.25	0.35	0.11	0.15	

Question Analysis (Multiple Choice)

Exam Takers = 382   **KR20 = 0.87**   **Stdev = 7.52**   **Mean = 59.92 (85.61%)**
Median = 62.00   **Min = 21.00**   **Max = 70.00**   **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bise	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
Majority	18 ✔	0.97	100.00%	91.43%	0.09 ✔	0.38	C	2	0	*372	5	3	0
						% Selected		0.52	0	97.38	1.31	0.79	0
						Point Biserial (rpb)		0.13	0	0.38	0.21	0.3	
	19 ✖	0.78	95.80%	48.57%	0.47 ✔	0.47	D	43	8	27	*297	7	0
						% Selected		11.26	2.09	7.07	77.75	1.83	0
						Point Biserial (rpb)		0.24	0.28	0.22	0.47	0.16	
	20 ✖	0.57	82.35%	20.00%	0.62 ✔	0.48	C	83	66	*219	4	10	0
						% Selected		21.73	17.28	57.33	1.05	2.62	0
						Point Biserial (rpb)		0.3	0.17	0.48	0.05	0.26	
	21 ✔	0.95	99.16%	87.62%	0.12 ❗	0.26	E	0	5	3	11	*363	0
						% Selected		0	1.31	0.79	2.88	95.03	0
						Point Biserial (rpb)		0	0.13	0.16	0.16	0.26	
	22 ✖	0.69	90.76%	40.95%	0.5 ✔	0.42	C	35	42	*264	16	25	0
						% Selected		9.16	10.99	69.11	4.19	6.54	0
						Point Biserial (rpb)		0.24	0.08	0.42	0.22	0.22	

Question Analysis (Multiple Choice)

Exam Takers = 382   **KR20 = 0.87**   **Stdev = 7.52**   **Mean = 59.92 (85.61%)**
Median = 62.00   **Min = 21.00**   **Max = 70.00**   **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bis	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
	23 ✖	0.69	94.12%	46.67%	0.47 ✔	0.42	B	59	*265	24	24	10	0
							% Selected	15.45	69.37	6.28	6.28	2.62	0
							Point Biserial (rpb)	0.13	0.42	0.33	0.15	0.19	
	24 ✖	0.7	73.11%	68.57%	0.05 ✖	0.05	C	0	99	*266	11	6	0
							% Selected	0	25.92	69.63	2.88	1.57	0
							Point Biserial (rpb)	0	0.01	0.05	0.1	0.01	
Majority	25 ✔	0.95	100.00%	82.86%	0.17 ✔	0.5	D	8	7	1	*362	4	0
							% Selected	2.09	1.83	0.26	94.76	1.05	0
							Point Biserial (rpb)	0.32	0.34	0.09	0.5	0.17	
Majority	26 ❗	0.89	100.00%	71.43%	0.29 ✔	0.45	D	9	18	10	*340	5	0
							% Selected	2.36	4.71	2.62	89.01	1.31	0
							Point Biserial (rpb)	0.15	0.32	0.28	0.45	0.06	
	27 ✔	0.95	99.16%	84.76%	0.14 ✔	0.34	A	*361	6	10	4	1	0
							% Selected	94.5	1.57	2.62	1.05	0.26	0
							Point Biserial (rpb)	0.34	0.19	0.18	0.21	0.09	
	28 ❗	0.91	97.48%	80.00%	0.17 ❗	0.24	C	6	14	*346	10	6	0

Question Analysis (Multiple Choice)

Exam Takers = 382   **KR20 = 0.87**   **Stdev = 7.52**   **Mean = 59.92 (85.61%)**
Median = 62.00   **Min = 21.00**   **Max = 70.00**   **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bis	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
							% Selected	1.57	3.66	90.58	2.62	1.57	0
							Point Biserial (rpb)	0.13	0.17	0.24	0.09	0.06	
Majority	29 ✔	0.95	100.00%	84.76%	0.15 ✔	0.3	D	7	6	2	*361	6	0
							% Selected	1.83	1.57	0.52	94.5	1.57	0
							Point Biserial (rpb)	0.17	0.17	0	0.3	0.19	
	30 !	0.88	94.96%	82.86%	0.12 ✘	0.13	C	39	1	*337	4	0	1
							% Selected	10.21	0.26	88.22	1.05	0	0.26
							Point Biserial (rpb)	0.05	0.05	0.13	0.23	0	
	31 !	0.86	96.64%	64.76%	0.32 ✔	0.45	E	11	5	10	27	*329	0
							% Selected	2.88	1.31	2.62	7.07	86.13	0
							Point Biserial (rpb)	0.25	0.16	0.21	0.24	0.45	
	32 !	0.87	94.12%	78.10%	0.16 !	0.26	E	6	4	3	35	*334	0
							% Selected	1.57	1.05	0.79	9.16	87.43	0
							Point Biserial (rpb)	0.3	0.03	0.15	0.11	0.26	
	33 ✘	0.62	93.28%	25.71%	0.68 ✔	0.51	E	25	8	90	21	*238	0
							% Selected	6.54	2.09	23.56	5.5	62.3	0

Question Analysis (Multiple Choice)

Exam Takers = 382 **KR20 = 0.87** **Stdev = 7.52** **Mean = 59.92 (85.61%)**
Median = 62.00 **Min = 21.00** **Max = 70.00** **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bise	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
						Point Biserial (rpb)		0.24	0.22	0.33	0.08	0.51	
	34 ✗	0.57	66.39%	43.81%	0.23 ⚠	0.23	D	27	31	99	*216	9	0
						% Selected		7.07	8.12	25.92	56.54	2.36	0
						Point Biserial (rpb)		0.17	0.07	0.05	0.23	0.17	
	35 ✓	0.95	97.48%	90.48%	0.07 ✗	0.15	B	5	*362	11	4	0	0
						% Selected		1.31	94.76	2.88	1.05	0	0
						Point Biserial (rpb)		0.01	0.15	0.08	0.21	0	
	36 ✗	0.8	90.76%	68.57%	0.22 ⚠	0.24	C	11	28	*304	24	15	0
						% Selected		2.88	7.33	79.58	6.28	3.93	0
						Point Biserial (rpb)		0.09	0.07	0.24	0.15	0.13	
	37 ✓	0.96	99.16%	88.57%	0.11 ✓	0.35	E	6	2	3	6	*365	0
						% Selected		1.57	0.52	0.79	1.57	95.55	0
						Point Biserial (rpb)		0.3	0.1	0.13	0.12	0.35	
Majority	38 ✓	0.97	100.00%	90.48%	0.1 ✓	0.3	B	0	*370	0	2	10	0
						% Selected		0	96.86	0	0.52	2.62	0
						Point Biserial (rpb)		0	0.3	0	0.2	0.24	

Question Analysis (Multiple Choice)

Exam Takers = 382 **KR20 = 0.87** **Stdev = 7.52** **Mean = 59.92 (85.61%)**
Median = 62.00 **Min = 21.00** **Max = 70.00** **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bise	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
	39 ✔	0.93	96.64%	90.48%	0.06 ✘	0.15	B	9	*357	13	1	2	0
		% Selected						2.36	93.46	3.4	0.26	0.52	0
		Point Biserial (rpb)						0.12	0.15	0.01	0.09	0.24	
Majority	40 ✔	0.97	100.00%	89.52%	0.1 ✔	0.38	D	1	10	1	*370	0	0
		% Selected						0.26	2.62	0.26	96.86	0	0
		Point Biserial (rpb)						0.03	0.37	0.1	0.38	0	
	41 !	0.85	98.32%	60.95%	0.37 ✔	0.49	D	34	3	4	*325	16	0
		% Selected						8.9	0.79	1.05	85.08	4.19	0
		Point Biserial (rpb)						0.38	0.04	0.08	0.49	0.27	
	42 ✘	0.81	95.80%	60.00%	0.36 ✔	0.37	B	3	*309	34	15	21	0
		% Selected						0.79	80.89	8.9	3.93	5.5	0
		Point Biserial (rpb)						0.05	0.37	0.16	0.18	0.26	
	43 ✘	0.58	74.79%	31.43%	0.43 ✔	0.34	B	3	*220	11	78	70	0
		% Selected						0.79	57.59	2.88	20.42	18.32	0
		Point Biserial (rpb)						0.03	0.34	0.22	0.16	0.17	
Majority	44 !	0.89	100.00%	71.43%	0.29 ✔	0.48	B	20	*340	15	7	0	0

Biochem Exam 1
Question Analysis (Multiple Choice)

Exam Takers = 382 **KR20 = 0.87** **Stdev = 7.52** **Mean = 59.92 (85.61%)**
Median = 62.00 **Min = 21.00** **Max = 70.00** **Total Pts = 70.00**

Majority	Ques #	Correct Responses Diff(p)	Upper	Lower	Disc. Index	Point Bise	Correct Answ	Response Frequencies (*Indicates correct answer) A	B	C	D	E	Unanswered
						% Selected		5.24	89.01	3.93	1.83	0	0
						Point Biserial (rpb)		0.35	0.48	0.23	0.2	0	
Majority	45 ✓	1	100.00%	99.05%	0.01 ✗	0.06	A	*381	0	0	0	1	0
						% Selected		99.74	0	0	0	0.26	0
						Point Biserial (rpb)		0.06	0	0	0	0.06	
	46 ✗	0.81	94.96%	59.05%	0.36 ✓	0.46	C	39	9	*311	7	16	0
						% Selected		10.21	2.36	81.41	1.83	4.19	0
						Point Biserial (rpb)		0.33	0.29	0.46	0.08	0.11	
	47 ✗	0.8	97.48%	55.24%	0.42 ✓	0.4	B	54	*304	16	0	7	1
						% Selected		14.14	79.58	4.19	0	1.83	0.26
						Point Biserial (rpb)		0.21	0.4	0.28	0	0.24	
	48 ✓	0.94	99.16%	85.71%	0.13 ✓	0.3	A	*359	5	13	1	4	0
						% Selected		93.98	1.31	3.4	0.26	1.05	0
						Point Biserial (rpb)		0.3	0.07	0.25	0.06	0.15	
	49 !	0.84	94.96%	72.38%	0.23 !	0.21	C	52	8	*322	0	0	0
						% Selected		13.61	2.09	84.29	0	0	0

Question Analysis (Multiple Choice)

Exam Takers = 382 **KR20 = 0.87** **Stdev = 7.52** **Mean = 59.92 (85.61%)**
Median = 62.00 **Min = 21.00** **Max = 70.00** **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bis	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
							Point Biserial (rpb)	0.17	0.11	0.21	0	0	
	50 ✓	0.92	99.16%	83.81%	0.15 ⚠ 0.26		D	5	0	3	*350	24	0
							% Selected	1.31	0	0.79	91.62	6.28	0
							Point Biserial (rpb)	0.13	0	0.16	0.26	0.17	
	51 ✗	0.77	90.76%	61.90%	0.29 ⚠ 0.29		E	23	4	6	55	*294	0
							% Selected	6.02	1.05	1.57	14.4	76.96	0
							Point Biserial (rpb)	0.17	0.22	0.18	0.1	0.29	
Majority	52 ✓	0.98	100.00%	91.43%	0.09 ✓ 0.32		E	5	2	1	1	*373	0
							% Selected	1.31	0.52	0.26	0.26	97.64	0
							Point Biserial (rpb)	0.24	0.13	0.11	0.13	0.32	
	53 ⚠	0.86	99.16%	67.62%	0.32 ✓ 0.36		D	10	8	20	*327	17	0
							% Selected	2.62	2.09	5.24	85.6	4.45	0
							Point Biserial (rpb)	0.09	0.14	0.29	0.36	0.14	
	54 ⚠	0.9	98.32%	75.24%	0.23 ✓ 0.34		D	4	3	0	*344	31	0
							% Selected	1.05	0.79	0	90.05	8.12	0
							Point Biserial (rpb)	0.17	0.11	0	0.34	0.28	

Question Analysis (Multiple Choice)

Exam Takers = 382 **KR20 = 0.87** **Stdev = 7.52** **Mean = 59.92 (85.61%)**
Median = 62.00 **Min = 21.00** **Max = 70.00** **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bis	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
Majority	55 ✓	0.98	100.00%	97.14%	0.03 ✗	0.15	B	1	*376	0	0	5	0
						% Selected		0.26	98.43	0	0	1.31	0
						Point Biserial (rpb)		0.27	0.15	0	0	0.04	
	56 ✗	0.67	84.87%	54.29%	0.31 !	0.21	C	9	38	*257	48	30	0
						% Selected		2.36	9.95	67.28	12.57	7.85	0
						Point Biserial (rpb)		0.04	0.08	0.21	0.13	0.09	
	57 !	0.87	95.80%	72.38%	0.23 ✓	0.3	B	6	*334	0	10	32	0
						% Selected		1.57	87.43	0	2.62	8.38	0
						Point Biserial (rpb)		0.21	0.3	0	0.25	0.12	
	58 !	0.9	99.16%	71.43%	0.28 ✓	0.4	C	7	27	*343	4	1	0
						% Selected		1.83	7.07	89.79	1.05	0.26	0
						Point Biserial (rpb)		0.11	0.38	0.4	0.02	0.13	
	59 ✗	0.84	97.48%	64.76%	0.33 ✓	0.38	D	6	5	4	*321	46	0
						% Selected		1.57	1.31	1.05	84.03	12.04	0
						Point Biserial (rpb)		0.31	0.23	0.04	0.38	0.21	

Question Analysis (Multiple Choice)

Exam Takers = 382   **KR20 = 0.87**   **Stdev = 7.52**   **Mean = 59.92 (85.61%)**
Median = 62.00   **Min = 21.00**   **Max = 70.00**   **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bis	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
Majority	60 ✓ 0.98		100.00%	95.24%	0.05 !	0.21	D	3	1	0	*375	3	0
		% Selected						0.79	0.26	0	98.17	0.79	0
		Point Biserial (rpb)						0.1	0.11	0	0.21	0.15	
	61 ✗ 0.81		96.64%	63.81%	0.33 ✓	0.39	A	*311	23	20	18	9	1
		% Selected						81.41	6.02	5.24	4.71	2.36	0.26
		Point Biserial (rpb)						0.39	0.21	0.11	0.15	0.3	
	62 ✗ 0.82		94.12%	60.00%	0.34 ✓	0.4	D	32	2	1	*313	34	0
		% Selected						8.38	0.52	0.26	81.94	8.9	0
		Point Biserial (rpb)						0.24	0.12	0.1	0.4	0.26	
	63 ✗ 0.85		97.48%	66.67%	0.31 ✓	0.35	A	*324	9	14	1	34	0
		% Selected						84.82	2.36	3.66	0.26	8.9	0
		Point Biserial (rpb)						0.35	0.12	0.09	0.01	0.32	
Majority	64 ✓ 0.96		100.00%	86.67%	0.13 ✓	0.41	C	2	2	*365	10	3	0
		% Selected						0.52	0.52	95.55	2.62	0.79	0
		Point Biserial (rpb)						0.23	0.02	0.41	0.25	0.33	
	65 ! 0.93		99.16%	80.95%	0.18 !	0.27	A	*356	2	12	4	7	1

Biochem Exam 1
Question Analysis (Multiple Choice)

Exam Takers = 382   **KR20 = 0.87**   **Stdev = 7.52**   **Mean = 59.92 (85.61%)**
Median = 62.00   **Min = 21.00**   **Max = 70.00**   **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bis	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
							% Selected	93.19	0.52	3.14	1.05	1.83	0.26
							Point Biserial (rpb)	0.27	0.1	0.15	0.24	0.09	
	66 ✗	0.78	93.28%	60.00%	0.33 ✓	0.4	C	46	18	*298	13	7	0
							% Selected	12.04	4.71	78.01	3.4	1.83	0
							Point Biserial (rpb)	0.18	0.33	0.4	0.17	0.03	
	67 ✗	0.86	96.64%	72.38%	0.24 ✓	0.37	C	12	27	*330	13	0	0
							% Selected	3.14	7.07	86.39	3.4	0	0
							Point Biserial (rpb)	0.25	0.24	0.37	0.12	0	
	68 ✗	0.79	94.96%	57.14%	0.38 ✓	0.42	D	3	64	12	*303	0	0
							% Selected	0.79	16.75	3.14	79.32	0	0
							Point Biserial (rpb)	0.07	0.32	0.26	0.42	0	
	69 ✓	0.92	98.32%	76.19%	0.22 ✓	0.39	E	14	14	3	0	*351	0
							% Selected	3.66	3.66	0.79	0	91.88	0
							Point Biserial (rpb)	0.24	0.29	0.07	0	0.39	
Majority	70 ✓	0.93	100.00%	79.05%	0.21 ✓	0.47	D	13	3	6	*354	5	1
							% Selected	3.4	0.79	1.57	92.67	1.31	0.26

Question Analysis (Multiple Choice)

Exam Takers = 382 **KR20 = 0.87** **Stdev = 7.52** **Mean = 59.92 (85.61%)**
Median = 62.00 **Min = 21.00** **Max = 70.00** **Total Pts = 70.00**

Majority	Ques #	Correct Responses			Disc. Index	Point Bis	Correct Answ	Response Frequencies (*Indicates correct answer)					
		Diff(p)	Upper	Lower				A	B	C	D	E	Unanswered
						Point Biserial (rpb)		0.32	0.13	0.21	0.47	0.23	
	71 ✖	0.77	91.60%	56.19%	0.35 ✔	0.38	D	23	16	20	*293	30	0
						% Selected		6.02	4.19	5.24	76.7	7.85	0
						Point Biserial (rpb)		0.11	0.04	0.24	0.38	0.27	

Question Analysis (Multiple Choice)

Exam Takers = 382 **KR20 = 0.87** **Stdev = 7.52** **Mean = 59.92 (85.61%)** **Median = 62.00** **Min = 21.00** **Max = 70.00** **Total Pts = 70.00**

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)										Unanswered	Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J		
2	0.78	97.48%	52.38%	0.45	0.43	A	*299	11	31	23	18	-	-	-	-	-	0	00:03
Question ID / Rev: 37476 / 3	-	-	-	-	% Selected	78.27	2.88	8.12	6.02	4.71	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	0.43	-0.20	-0.21	-0.18	-0.21	-	-	-	-	-	-	-

Q: Theophylline is a specific phosphodiesterase (PDE3) inhibitor that can be used to treat severe obstructive lung disease. This drug results in which of the following changes in the signalling pathways?
* A: Increase in cAMP--->increase in Gs signaling
  B: Decrease in cAMP--> increase in Gs signaling
  C: Increase in cAMP-->increase in Gi signaling
  D: Decrease in cAMP--> decrease in Gi signaling
  E: Increase in cAMP-->increase in Gq signaling

3	0.82	94.96%	66.67%	0.28	0.31	B	8	*313	15	6	39	-	-	-	-	-	1	00:03
Question ID / Rev: 18503 / 11	-	-	-	-	% Selected	2.09	81.94	3.93	1.57	10.21	-	-	-	-	-	0.26	-
-	-	-	-	-	Point Biserial (rpb)	-0.11	0.31	-0.28	0.02	-0.17	-	-	-	-	-	-	-

Q: The brain is very dependent on glucose for fuel (although it can use ketones bodies if necessary) Which of the following statements describe the status of glucose transport into the brain of an uncontrolled Type 1 diabetic patient who has no endogenous insulin?
  A: Under these conditions there is no glucose transport into the brain and the patient goes into a coma
* B: Under these conditions, there is still glucose transport into the brain because GLUT-1 is not insulin dependent
  C: In a Type 1 diabetic patient, the brain mainly uses ketone bodies in the fed state since its GLUT-4 transporter is insulin sensitive
  D: Glucose transport in the brain does not require a glucose transporter and uses simple diffusion based on a concentration gradient
  E: Under these conditions, there is still glucose transport into the brain via GLUT-2 which is not insulin-dependent

4	0.79	88.24%	70.48%	0.18	0.20	E	3	52	20	5	*302	-	-	-	-	-	0	00:03
Question ID / Rev: 37438 / 5	-	-	-	-	% Selected	0.79	13.61	5.24	1.31	79.06	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	-0.03	-0.07	-0.16	-0.17	0.20	-	-	-	-	-	-	-

Q: Tisha is a 16-year old female brought to the ER for multiple episodes of vomiting and rapid deterioration of her condition. Pertinent history includes nausea and epigastric pain of 10 hours' duration. Her parents think that she might have ingested something. On physical examination, she was lethargic, blood pressure = 100/60, respiration = 18/min (normal = 16 - 20), heart rate = 110/min. Her blood gas results on admission were as follows: arterial pH = 7.4 , PCO2= 40 mm Hg , Na+ =144 mEq/L , Cl- = 100 mEq/L , HCO3- = 24 mEq/L. Which of the following best explains Tisha's clinical presentation?
  A: Tisha does not have any acid-base disorder and therefore her blood pH is normal
  B: Tisha has metabolic acidosis as a result of ingestion of a poison
  C: Tisha's vomiting is a compensatory mechanism
  D: Tisha has respiratory acidosis as a compensatory mechanism
* E: Tisha has a mixed acid-base disorder

5	0.85	96.64%	65.71%	0.31	0.41	B	14	*325	7	28	8	-	-	-	-	-	0	00:02
Question ID / Rev: 29781 / 6	-	-	-	-	% Selected	3.66	85.08	1.83	7.33	2.09	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	-0.26	0.41	-0.11	-0.21	-0.20	-	-	-	-	-	-	-

Q: Decreased expression of which of the following proteins could cause Ehlers-Danlos syndrome?
  A: Elastin
* B: Lysyl hydroxylase
  C: Elastase
  D: Fibrillin
  E: α1-Antitrypsin

6	0.90	97.48%	77.14%	0.20	0.33	B	26	*344	10	0	2	-	-	-	-	-	0	00:03
Question ID / Rev: 37437 / 3	-	-	-	-	% Selected	6.81	90.05	2.62	0.00	0.52	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	-0.26	0.33	-0.15	0.00	-0.16	-	-	-	-	-	-	-

Q: When the concentration of substrate in an enzymatic reaction is equal to the KM, which of the following represents the velocity of the reaction?
  A: VMax
* B: 50% of the VMax
  C: Twice the VMax
  D: Ten times the VMax
  E: 10% of the VMax

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Unanswered	Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J		
7	0.88	94.96%	78.10%	0.17	0.28	E	12	3	5	24	*338	-	-	-	-	-	0	00:01
Question ID / Rev: 37449 / 4				-	-	% Selected	3.14	0.79	1.31	6.28	88.48	-	-	-	-	-	0.00	-
-	-	-	-	-		Point Biserial (rpb)	-0.10	-0.29	-0.11	-0.15	0.28	-	-	-	-	-	-	-

Q: Lactate dehydrogenase (LDH), an enzyme which catalyzes the reversible conversion of lactate to pyruvate, is a tetrameric enzyme with each subunit designated as either the heart type (H) or the liver type (L). Five different isoenzymes of LDH are involved in catalyzing the same reaction in different tissues. Which of the following isoenzymes would be most elevated in the serum of patients with hepatitis?
    A: H4
    B: H3L
    C: H2L2
    D: H1L3
  * E: L4

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Unanswered	Avg Answer Time
8	0.92	98.32%	81.90%	0.16	0.33	C	4	19	*351	5	3	-	-	-	-	-	0	00:02
Question ID / Rev: 37466 / 3				-	-	% Selected	1.05	4.97	91.88	1.31	0.79	-	-	-	-	-	0.00	-
-	-	-	-	-		Point Biserial (rpb)	-0.16	-0.23	0.33	-0.15	-0.08	-	-	-	-	-	-	-

Q: Many insecticides contain compounds which are suicide inhibitors of the enzyme, acetylcholine esterase. The kinetics of enzyme inhibition by such compounds is consistent with which of the following?
    A: No change in either apparent KM or apparent VMax
    B: Increased apparent KM; No change in apparent VMax
  * C: No change in apparent KM; Decreased apparent VMax
    D: Lineweaver-Burke plot of the inhibition shows lines intersecting at the Y-axis
    E: The velocity vs [substrate] curve becomes sigmoidal

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Unanswered	Avg Answer Time
9	0.72	89.92%	51.43%	0.38	0.34	B	29	*276	15	19	43	-	-	-	-	-	0	00:01
Question ID / Rev: 37446 / 2				-	-	% Selected	7.59	72.25	3.93	4.97	11.26	-	-	-	-	-	0.00	-
-	-	-	-	-		Point Biserial (rpb)	-0.25	0.34	-0.15	-0.08	-0.12	-	-	-	-	-	-	-

Q: Which of the following describes a characteristic feature of an enzyme obeying Michaelis-Menten kinetics?
    A: The enzyme velocity is at 1/2 the maximal rate when 100% of the enzyme molecules contain bound substrate
  * B: The enzyme velocity is at 1/2 the maximal rate when 50% of the enzyme molecules contain bound substrate
    C: The enzyme velocity is at its maximal rate when 50% of the enzyme molecules contain bound substrate
    D: The enzyme velocity is at 1/2 the maximal rate when 100% of the substrate molecules in solution are bound by the enzyme
    E: The velocity of the reaction is independent of the concentration of enzyme

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Unanswered	Avg Answer Time
10	0.91	96.64%	81.90%	0.15	0.27	D	7	1	15	*349	10	-	-	-	-	-	0	00:03
Question ID / Rev: 37442 / 4				-	-	% Selected	1.83	0.26	3.93	91.36	2.62	-	-	-	-	-	0.00	-
-	-	-	-	-		Point Biserial (rpb)	-0.08	-0.08	-0.16	0.27	-0.18	-	-	-	-	-	-	-

Q: Hyperthyroxinemia (elevation of thyroxine in the blood) is sometimes caused by a mutant form of serum albumin with an unusually high affinity for the thyroid hormone thyroxine (T4). Structural studies of the mutant protein show that an active site arginine residue, which binds the carboxylate group of T4 in normal albumin, is replaced with a similarly charged residue, giving T4 a better steric fit. Which one of the following is a likely replacement for arginine?
    A: Glu
    B: Pro
    C: Ser
  * D: Lys
    E: Gly

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Unanswered	Avg Answer Time
11	0.93	100.00%	80.95%	0.19	0.35	C	15	1	*356	2	8	-	-	-	-	-	0	00:02
Question ID / Rev: 37458 / 2				-	-	% Selected	3.93	0.26	93.19	0.52	2.09	-	-	-	-	-	0.00	-
-	-	-	-	-		Point Biserial (rpb)	-0.28	-0.04	0.35	-0.14	-0.15	-	-	-	-	-	-	-

Q: Aspirin covalently acetylates a serine residue at the active site of cyclooxygenase (COX) isozymes. Which of the following mechanisms is consistent with the effects of aspirin on COX enzymes?
    A: Competitive inhibition
    B: Reversible inhibition
  * C: Suicide inhibition
    D: Non-competitive inhibition
    E: Allosteric inhibition

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J	Unanswered	
12	0.80	88.24%	76.19%	0.12	0.11	B	7	*306	4	9	56	-	-	-	-	-	0	00:03
Question ID / Rev: 37469 / 2			-	-	% Selected	1.83	80.10	1.05	2.36	14.66	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	-0.05	0.11	-0.23	-0.05	-0.02	-	-	-	-	-	-	-

Q: A 78-year old man and his 75-year old wife arrived in the ER by ambulance with headache, lethargy, and shortness of breath. After two hours, the couple felt better and went home. Two days later they returned from their country cabin with the same symptoms. After treatment with 100% oxygen, they both improved. Which of the following lab tests supports the choice of treatment with 100% oxygen?
   A: Blood level of cyanomethemoglobin
 * B: Blood level of carboxyhemoglobin
   C: Blood level of HbA1c
   D: Blood level of HbS
   E: Blood level of carbaminohemoglobin

13	0.88	94.96%	80.00%	0.15	0.14	A	*337	12	6	21	5	-	-	-	-	-	1	00:02
Question ID / Rev: 37433 / 5			-	-	% Selected	88.22	3.14	1.57	5.50	1.31	-	-	-	-	-	0.26	-
-	-	-	-	-	Point Biserial (rpb)	0.14	-0.09	-0.05	-0.11	-0.03	-	-	-	-	-	-	-

Q: The artificial sweetener, Nutrasweet®, is not a sugar derivative, but is actually the methyl ester of a dipeptide. The N-terminal amino acid of the dipeptide has an acidic sidechain and the C-terminal residue is an esterified aromatic amino acid. This dipeptide is composed of which of the following pairs of amino acids?
 * A: Aspartic acid and phenylalanine
   B: Aspartic acid and histidine
   C: Asparagine and tyrosine
   D: Aspartic acid and proline
   E: Asparagine and tryptophan

14	0.87	96.64%	67.62%	0.29	0.47	B	7	*331	29	9	6	-	-	-	-	-	0	00:02
Question ID / Rev: 37474 / 2			-	-	% Selected	1.83	86.65	7.59	2.36	1.57	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	-0.19	0.47	-0.31	-0.28	-0.08	-	-	-	-	-	-	-

Q: Hydrops fetalis is the most severe form of
   A: Cooley's anemia
 * B: α-Thalassemia
   C: β-Thalassemia
   D: Sickle cell disease
   E: Ehlers-Danlos Syndrome

15	0.95	100.00%	86.67%	0.13	0.30	A	*364	1	1	7	9	-	-	-	-	-	0	13:43
Question ID / Rev: 26038 / 5			-	-	% Selected	95.29	0.26	0.26	1.83	2.36	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	0.30	-0.03	-0.01	-0.21	-0.22	-	-	-	-	-	-	-

Q: Amobarbital (Amytal) is a barbiturate derivative that acts as a sedative by depressing the Central Nervous System (CNS). An additional activity of the compound, unrelated to its effects on the CNS, is its inhibition of the electron transport chain by blocking Complex I. When Complex I is inhibited by Amobarbital, some ATP generation by oxidative phosphorylation may still occur because of which of the following reasons?
 * A: Complex II can donate electrons to Complex III, bypassing Complex I
   B: Uncoupling allows the proton gradient to form across inner mitochondrial membrane
   C: NADH accumulates and drives electron transport forward
   D: ATP synthase acts independently of electron transport chain
   E: NADH can donate electrons directly to complex III, bypassing Complex II

16	0.98	100.00%	95.24%	0.05	0.09	C	3	5	*374	0	0	-	-	-	-	-	0	00:03
Question ID / Rev: 42 / 15			-	-	% Selected	0.79	1.31	97.91	0.00	0.00	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	-0.04	-0.08	0.09	0.00	0.00	-	-	-	-	-	-	-

Q: A 32-year-old man underwent surgery for a fractured hip on July 1. On July 3, a pulmonary embolism occurred. Shortness of breath developed rapidly. Blood chemistry showed pH 7.50, pCO2 30 mm Hg, [HCO3-] 24 mEq/L, [Na+] 138 mEq/L, and [Cl-] 100 mEq/L. Which of the following is his most likely diagnosis?
   A: Respiratory acidosis
   B: Metabolic alkalosis
 * C: Respiratory alkalosis
   D: Metabolic acidosis
   E: Normal

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J	Unanswered	
17	0.96	100.00%	86.67%	0.13	0.45	A	*365	6	5	4	2	-	-	-	-	-	0	00:03
Question ID / Rev: 37435 / 2				-	-	% Selected	95.55	1.57	1.31	1.05	0.52	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	0.45	-0.25	-0.35	-0.11	-0.15	-	-	-	-	-	-	-

Q: A gas-well worker is suddenly overcome while investigating a leak. He has been exposed to a high concentration of hydrogen cyanide gas. He lost consciousness and suffered cardiopulmonary arrest. The sudden loss of heart and mental function was due to which of the following reasons?
* A: Inhibition of cytochrome c oxidase
   B: Inhibition of ubiquinone:cytochrome c reductase
   C: Uncoupling of the mitochondrial electron transport chain
   D: Direct inhibition of ATP synthase
   E: Inhibition of succinate dehydrogenase

18	0.97	100.00%	91.43%	0.09	0.38	C	2	0	*372	5	3	-	-	-	-	-	0	00:02
Question ID / Rev: 37461 / 13				-	-	% Selected	0.52	0.00	97.38	1.31	0.79	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.13	0.00	0.38	-0.21	-0.30	-	-	-	-	-	-	-

Q: The standard free energy change ($\Delta G^{o'}$) of an endergonic reaction is shown in the attached figure. Which of the following reactions may be coupled to this reaction to make the formation of products thermodynamically feasible?
   A: Glucose 6-phosphate + H2O → Glucose+ Pi ($\Delta G^{o'}$ = −3.3 kcal/mol)
   B: Pyrophosphate + H2O → 2 Pi ($\Delta G^{o'}$ = − 4.6 kcal/mol)
* C: ATP + H2O → ADP + Pi ($\Delta G^{o'}$ = − 7.3 kcal/mol)
   D: Glucose + Fructose → Sucrose + H2O ($\Delta G^{o'}$ = +6.5 kcal/mol)
   E: Glucose 6-phosphate → Fructose 6-phosphate ($\Delta G^{o'}$ = +0.4 kcal/mol)

19	0.78	95.80%	48.57%	0.47	0.47	D	43	8	27	*297	7	-	-	-	-	-	0	00:02
Question ID / Rev: 26281 / 4				-	-	% Selected	11.26	2.09	7.07	77.75	1.83	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.24	-0.28	-0.22	0.47	-0.16	-	-	-	-	-	-	-

Q: G12V is a common mutation found in 90% of pancreatic cancers in which a glycine at position 12 in Ras protein is replaced with a valine. Mutant Ras constitutively activates the MAP kinase pathway and cell proliferation. This mutation is oncogenic because of which of the following reasons?
   A: Mutant ras has a higher protein kinase activity
   B: Mutant Ras dissociates readily from Raf
   C: Mutant Ras cannot exchange GDP for GTP
* D: Mutant Ras cannot hydrolyze GTP
   E: Mutant Ras cannot recruit Raf to the plasma membrane

20	0.57	82.35%	20.00%	0.62	0.48	C	83	66	*219	4	10	-	-	-	-	-	0	00:02
Question ID / Rev: 26052 / 6				-	-	% Selected	21.73	17.28	57.33	1.05	2.62	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.30	-0.17	0.48	-0.05	-0.26	-	-	-	-	-	-	-

Q: Why is administration of sodium nitrite a suitable treatment for cyanide poisoning?
   A: Nitrites convert CN- to thiocyanate which is less toxic
   B: Nitrites compete with CN- for binding to Complex IV in the electron transport chain
* C: Nitrites oxidize HbA to MetHb which sequesters CN-
   D: Nitrites cause an increase in HbF production leading to a lower P50
   E: Nitrites compete with CN- for binding to HbA

21	0.95	99.16%	87.62%	0.12	0.26	E	0	5	3	11	*363	-	-	-	-	-	0	00:02
Question ID / Rev: 37441 / 3				-	-	% Selected	0.00	1.31	0.79	2.88	95.03	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	0.00	-0.13	-0.16	-0.16	0.26	-	-	-	-	-	-	-

Q: Jasmine D. is a 21-year old African-American female brought to the ER for unbearable pain in her back, abdomen and extremities, after a night of indulgent drinking. She has sickle cell disease and had a similar crisis two years ago, during an episode of influenza. On examination, Jasmine is dehydrated, writhing in pain with BP = 90/60, respiration = 21 /min (normal = 16-20). Significant findings include pale nail beds and conjunctiva and with diffusely tender extremities on limb palpation. Her lab values on admission were as follows: Hb= 9 g/dL, Hematocrit = 27%, arterial pH = 7.36, PCO2 = 29 mm Hg , Na+ = 140 mEq/L, Cl- = 100 mEq/L , HCO3- = 16 mEq/L. Which of the following statements is correct?
   A: Jasmine's arterial pH is normal, therefore she does not have any acid-base disorder
   B: Jasmine has metabolic acidosis even though her anion gap is normal
   C: Jasmine has metabolic alkalosis as a result of alcohol-induced dehydration
   D: Jasmine's pain crisis was due to a decrease in 2,3 BPG concentration in her red blood cells which led to sickling
* E: Jasmine's pain crisis was the result of metabolic acidosis which caused her red blood cells to sickle

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)										Unanswered	Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J		
22	0.69	90.76%	40.95%	0.50	0.42	C	35	42	*264	16	25	-	-	-	-	-	0	00:01
Question ID / Rev: 37440 / 4				-	-	% Selected	9.16	10.99	69.11	4.19	6.54	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.24	-0.08	0.42	-0.22	-0.22	-	-	-	-	-	-	-

Q: Richard F. is a 50-year old male who was brought to the ER after having a grand mal seizure at his workplace. Richard works as a material handler and forklift truck operator in a large cold storage room of a food company. He drives a propane-powered forklift truck. Pertinent history includes unusual tiredness and extreme irritability after his shift the day before and severe headache and difficulty breathing immediately prior to having a seizure. Richard is a non-smoker with no known history of seizures. On physical examination, Richard was feeling dizzy and confused with a heart rate = 120/min and respiration = 30 /min (normal= 16-20). Apparent oxygen saturation of hemoglobin by pulse oximetry was 99%. Toxic exposure to carbon monoxide gas is suspected. Which of the following statements is correct regarding carbon monoxide?
   A: Carbon monoxide has a higher affinity for hemoglobin than oxygen resulting in increased T form of Hb
   B: Carbon monoxide binds to the central pocket in the middle of four Hb subunits
 * C: Carbon monoxide binds to the heme component in cytochrome c oxidase resulting in decreased ATP synthesis
   D: Carbon monoxide has a lower affinity for hemoglobin than oxygen resulting in a left shift in oxygen-hemoglobin dissociation curve
   E: Carbon monoxide has a higher affinity for hemoglobin than oxygen resulting in a right shift in oxygen-hemoglobin dissociation curve

23	0.69	94.12%	46.67%	0.47	0.42	B	59	*265	24	24	10	-	-	-	-	-	0	00:02
Question ID / Rev: 37439 / 2				-	-	% Selected	15.45	69.37	6.28	6.28	2.62	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.13	0.42	-0.33	-0.15	-0.19	-	-	-	-	-	-	-

Q: Jonathan is a 22 year-old known asthmatic who was brought in to the ER for progressive shortness of breath and wheezing. On PE, Jonathan was in moderate respiratory distress with RR=46/min, HR 92/min and bp=150/90 mm Hg. He was administered O2 and given nebulized Albuterol and intravenous methylprednisolone twice over a 30-minute interval. Atrovent (ipratropium bromide) was added to the treatment regimen after another 30 minutes. Administration of Albuterol and Atrovent result in bronchial smooth muscle relaxation by which of the following mechanisms?
   A: Albuterol increases protein kinase A activity while Atrovent increases phospholipase C activity
 * B: Albuterol increases protein kinase A activity while Atrovent decreases phospholipase C activity
   C: Albuterol decreases protein kinase A activity while Atrovent increases phospholipase C activity
   D: Both Albuterol and Atrovent decrease cytosolic cAMP concentrations
   E: Both Albuterol and Atrovent increase cytosolic Ca++ concentrations

24	0.70	73.11%	68.57%	0.05	0.05	C	0	99	*266	11	6	-	-	-	-	-	0	00:02
Question ID / Rev: 37479 / 1				-	-	% Selected	0.00	25.92	69.63	2.88	1.57	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	0.00	-0.01	0.05	-0.10	-0.01	-	-	-	-	-	-	-

Q: Crohn's Disease is a result of an inflammation of the small intestiness. Which of the following processes would be affected in these patients?
   A: Digestion of starch by oral amylase
   B: Digestion of starch by pancreatic amylase
 * C: Absorption of disaccharides in the duodenum
   D: Release of chyme into the duodenum
   E: Absorption of lactose in the colon

25	0.95	100.00%	82.86%	0.17	0.50	D	8	7	1	*362	4	-	-	-	-	-	0	00:02
Question ID / Rev: 37436 / 5				-	-	% Selected	2.09	1.83	0.26	94.76	1.05	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.32	-0.34	-0.09	0.50	-0.17	-	-	-	-	-	-	-

Q: Thermogenin is a protein found in the cells of brown adipose tissue which are rich in mitochondria. Thermogenin aids in maintaining body temperature in babies and hibernating animals by which of the following mechanisms?
   A: Allowing protons to return to matrix, via ATP synthase
   B: Promoting the direct transfer of electrons from ubiquinone to oxygen
   C: Blocking proton export into the intermembrane space
 * D: Allowing protons to return to matrix, bypassing ATP synthase
   E: Inhibiting the electron transport chain

26	0.89	100.00%	71.43%	0.29	0.45	D	9	18	10	*340	5	-	-	-	-	-	0	00:02
Question ID / Rev: 34250 / 6				-	-	% Selected	2.36	4.71	2.62	89.01	1.31	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.15	-0.32	-0.28	0.45	-0.06	-	-	-	-	-	-	-

Q: Which of the following carbohydrates contains a β-glycosidic linkage that is digestible by humans?
   A: Sucrose
   B: Starch
   C: Glycogen
 * D: Lactose
   E: Maltose

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J	Unanswered	
27	0.95	99.16%	84.76%	0.14	0.34	A	*361	6	10	4	1	-	-	-	-	-	0	00:02
Question ID / Rev: 29758 / 3				-	-	% Selected	94.50	1.57	2.62	1.05	0.26	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		0.34	-0.19	-0.18	-0.21	-0.09	-	-	-	-	-	-	-

Q: Lactate dehydrogenase catalyzes the interconversion of pyruvate and lactate as shown below: Pyruvate + NADH + H+ ↔ Lactate + NAD+ Lactate dehydrogenase belongs to which of the following classes of enzymes?
* A: Oxidoreductases
  B: Transferases
  C: Hydrolases
  D: Lyases
  E: Isomerases

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	A	B	C	D	E	F	G	H	I	J	Unanswered	Avg Answer Time
28	0.91	97.48%	80.00%	0.17	0.24	C	6	14	*346	10	6	-	-	-	-	-	0	00:01
Question ID / Rev: 29757 / 3				-	-	% Selected	1.57	3.66	90.58	2.62	1.57	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.13	-0.17	0.24	-0.09	-0.06	-	-	-	-	-	-	-

Q: Which of the following oligopeptides would exhibit a net negative electrical charge at pH 7.4?
  A: Ala-Gly-Pro-Gln-Met
  B: Glu-Pro-Lys-Val-Leu
* C: Met-Thr-Asn-Asp-Gly
  D: Ile-Val-Gln-Ser-Arg
  E: Phe-Ala-Thr-Tyr-Trp

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	A	B	C	D	E	F	G	H	I	J	Unanswered	Avg Answer Time
29	0.95	100.00%	84.76%	0.15	0.30	D	7	6	2	*361	6	-	-	-	-	-	0	00:03
Question ID / Rev: 29753 / 5				-	-	% Selected	1.83	1.57	0.52	94.50	1.57	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.17	-0.17	0.00	0.30	-0.19	-	-	-	-	-	-	-

Q: Leber's hereditary optic neuropathy (LHON disease) is characterized by sudden-onset blindness that occurs in early adulthood due to death of the optic nerve. In nearly all families studied, LHON is associated with mutations in mitochondrial genes encoding subunits of complex I of electron transport chain. Such mutations disrupt energy metabolism by directly decreasing the rate of electron transfer from:
  A: Ubiquinone to Cytochrome c
  B: FADH2 to ubiquinone
  C: Cytochrome c to O2
* D: NADH to ubiquinone
  E: Succinate to ubiquinone

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	A	B	C	D	E	F	G	H	I	J	Unanswered	Avg Answer Time
30	0.88	94.96%	82.86%	0.12	0.13	C	39	1	*337	4	0	-	-	-	-	-	1	00:03
Question ID / Rev: 29750 / 2				-	-	% Selected	10.21	0.26	88.22	1.05	0.00	-	-	-	-	-	0.26	-
-	-	-	-	-	Point Biserial (rpb)		-0.05	-0.05	0.13	-0.23	0.00	-	-	-	-	-	-	-

Q: Skin fibroblasts incubated with radioactive amino acids synthesize polypeptide chains that assemble to form a triple helix. Which among the following amino acids is incorporated as every third residue in the polypeptide in this process?
  A: Lysine
  B: Alanine
* C: Glycine
  D: Leucine
  E: Cysteine

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	A	B	C	D	E	F	G	H	I	J	Unanswered	Avg Answer Time
31	0.86	96.64%	64.76%	0.32	0.45	E	11	5	10	27	*329	-	-	-	-	-	0	00:02
Question ID / Rev: 26284 / 2				-	-	% Selected	2.88	1.31	2.62	7.07	86.13	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.25	-0.16	-0.21	-0.24	0.45	-	-	-	-	-	-	-

Q: Which of the following types of metabolic regulation takes the most time and occurs as long-term regulatory mechanism?
  A: Modulation of substrate/product levels
  B: Product inhibition of the rate-limiting step
  C: Allosteric control of the committed step
  D: Covalent modification of an irreversible enzyme
* E: Modulation of gene expression

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)										Unanswered	Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J		
32	0.87	94.12%	78.10%	0.16	0.26	E	6	4	3	35	*334	-	-	-	-	-	0	00:03
Question ID / Rev: 26279 / 3			-	-	% Selected	1.57	1.05	0.79	9.16	87.43	-	-	-	-	-	0.00	-
-	-	-	-	-	**Point Biserial (rpb)**	-0.30	-0.03	-0.15	-0.11	0.26	-	-	-	-	-	-	-	-

Q: A health care worker on a humanitarian mission develops extreme watery diarrhea and dehydration and is diagnosed with cholera. The primary biochemical effect of cholera toxin is which of the following?
  A: Increased cAMP due to persistent inactivation of Gi
  B: Increased IP3 due to ADP-ribosylation of Gq
  C: Increased cAMP due to an inhibition of cAMP phosphodiesterase
  D: Increased cAMP due to ADP-ribosylation of adenylate cyclase
  * **E:** Increased cAMP due to persistent activation of Gs

33	0.62	93.28%	25.71%	0.68	0.51	E	25	8	90	21	*238	-	-	-	-	-	0	00:03
Question ID / Rev: 26276 / 4			-	-	% Selected	6.54	2.09	23.56	5.50	62.30	-	-	-	-	-	0.00	-
-	-	-	-	-	**Point Biserial (rpb)**	-0.24	-0.22	-0.33	-0.08	0.51	-	-	-	-	-	-	-	-

Q: Interaction of insulin with its receptor initiates the phosphatidyl inositol 3-kinase (PI 3-kinase) pathway to promote the translocation of GLUT-4 glucose transporters to the plasma membrane of muscle cells. This action of insulin is mediated by which of the following proteins?
  A: Protein kinase C
  B: Protein kinase A
  C: MAP kinase (ERK)
  D: Ras
  * **E:** Protein kinase B (Akt)

34	0.57	66.39%	43.81%	0.23	0.23	D	27	31	99	*216	9	-	-	-	-	-	0	00:02
Question ID / Rev: 26053 / 14			-	-	% Selected	7.07	8.12	25.92	56.54	2.36	-	-	-	-	-	0.00	-
-	-	-	-	-	**Point Biserial (rpb)**	-0.17	-0.07	-0.05	0.23	-0.17	-	-	-	-	-	-	-	-

Q: Which of the arrows marked by letters in the attached figure represents the activation energy for the enzyme catalyzed reverse reaction? (See attached figure)
  A: A
  B: B
  C: C
  * **D:** D
  E: E

35	0.95	97.48%	90.48%	0.07	0.15	B	5	*362	11	4	0	-	-	-	-	-	0	00:02
Question ID / Rev: 26029 / 2			-	-	% Selected	1.31	94.76	2.88	1.05	0.00	-	-	-	-	-	0.00	-
-	-	-	-	-	**Point Biserial (rpb)**	0.01	0.15	-0.08	-0.21	0.00	-	-	-	-	-	-	-	-

Q: Autopsies of patients with Alzheimer's disease show protein aggregates called neurofibrillary tangles and neuritic plaques in various regions of the brain (similar to the protein aggregates of prions). These plaques exhibit characteristic staining of amyloid. Which of the following structural features is the most likely characteristic of at least one protein in these plaques?
  A: High content of alpha helical structure
  * **B:** High content of beta pleated sheet structure
  C: High content of random coils
  D: High content of disulfide bond cross-links between polypeptide chains
  E: High content of low-energy native conformation

36	0.80	90.76%	68.57%	0.22	0.24	C	11	28	*304	24	15	-	-	-	-	-	0	00:03
Question ID / Rev: 26026 / 2			-	-	% Selected	2.88	7.33	79.58	6.28	3.93	-	-	-	-	-	0.00	-
-	-	-	-	-	**Point Biserial (rpb)**	-0.09	-0.07	0.24	-0.15	-0.13	-	-	-	-	-	-	-	-

Q: A protein has one transmembrane domain composed entirely of alpha-helical secondary structure. Which amino acid would probably not be present in the transmembrane domain:
  A: Leu
  B: Ala
  * **C:** Pro
  D: Ile
  E: Val

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)										Unanswered	Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J		
37	0.96	99.16%	88.57%	0.11	0.35	E	6	2	3	6	*365	-	-	-	-	-	0	00:01
Question ID / Rev: 26012 / 8				-	-	% Selected	1.57	0.52	0.79	1.57	95.55	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.30	-0.10	-0.13	-0.12	0.35	-	-	-	-	-	-	-

Q: A 67-year-old female smoker is diagnosed with α1-antitrypsin (AAT) deficiency and has emphysema. Her arterial PCO2 would be best approximated by which of the following values?
  A: 20
  B: 26
  C: 30
  D: 40
* E: 55

38	0.97	100.00%	90.48%	0.10	0.30	B	0	*370	0	2	10	-	-	-	-	-	0	00:01
Question ID / Rev: 1413 / 12				-	-	% Selected	0.00	96.86	0.00	0.52	2.62	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		0.00	0.30	0.00	-0.20	-0.24	-	-	-	-	-	-	-

Q: A patient with sickle cell disease is a heavy smoker and developed emphysema, thus severely reducing his pulmonary function. Arterial blood gas and serum electrolyte values are pH = 7.35, PCO2 = 55 mm Hg, HCO3- = 29 mEq/L, [Na+] = 140 mEq/L and [Cl-] = 101 mEq/L. The patient's acid-base status may be characterized as which of the following?
  A: Metabolic alkalosis
* B: Respiratory acidosis
  C: Elevated anion gap metabolic acidosis
  D: Respiratory alkalosis
  E: Normal anion gap metabolic acidosis

39	0.93	96.64%	90.48%	0.06	0.15	B	9	*357	13	1	2	-	-	-	-	-	0	00:03
Question ID / Rev: 37477 / 2				-	-	% Selected	2.36	93.46	3.40	0.26	0.52	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.12	0.15	0.01	-0.09	-0.24	-	-	-	-	-	-	-

Q: The pathway of purine nucleotide synthesis is shown in the attached figure. The negative regulation of the step catalyzed by PRPP amidotransferase by IMP, AMP and GMP may be categorized as which of the following?
  A: Competitive inhibition
* B: Feedback inhibition
  C: Non-competitive inhibition
  D: Suicide inhibition
  E: Irreversible inhibition

40	0.97	100.00%	89.52%	0.10	0.38	D	1	10	1	*370	0	-	-	-	-	-	0	00:01
Question ID / Rev: 37451 / 2				-	-	% Selected	0.26	2.62	0.26	96.86	0.00	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.03	-0.37	-0.10	0.38	0.00	-	-	-	-	-	-	-

Q: An insulin-dependent diabetic patient was following his doctor's orders to increase his exercise by walking briskly for 2 miles after a meal. Unfortunately, he forgot to take his insulin before he left the house. He became hyperglycemic and developed bad muscle cramps. Which of the following glucose transporters would be decreased as a result of his noncompliance?
  A: GLUT-1
  B: GLUT-2
  C: GLUT-3
* D: GLUT-4
  E: GLUT-7

41	0.85	98.32%	60.95%	0.37	0.49	D	34	3	4	*325	16	-	-	-	-	-	0	00:03
Question ID / Rev: 37471 / 2				-	-	% Selected	8.90	0.79	1.05	85.08	4.19	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.38	-0.04	-0.08	0.49	-0.27	-	-	-	-	-	-	-

Q: A 7-year-old African-American boy is admitted to the hospital with severe abdominal pain. A blood workup indicated anemia, and a peripheral blood smear displayed abnormally shaped erythrocytes. The molecular event triggering this condition is most likely which of the following?
  A: Loss of quaternary structure of the hemoglobin molecule
  B: Increase in oxygen binding to the hemoglobin
  C: Gain of ionic interactions, stabilizing the "R" form of hemoglobin
* D: Increase in hydrophobic interactions between deoxyhemoglobin molecules
  E: Alteration in hemoglobin secondary structure leading to loss of the alpha helix

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Unanswered	Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J		
42	0.81	95.80%	60.00%	0.36	0.37	B	3	*309	34	15	21	-	-	-	-	-	0	00:02
Question ID / Rev: 37467 / 2				-	-	% Selected	0.79	80.89	8.90	3.93	5.50	-	-	-	-	-	0.00	-
-	-	-	-	-		Point Biserial (rpb)	-0.05	0.37	-0.16	-0.18	-0.26	-	-	-	-	-	-	-

Q: Which of the following characterizes the alpha-helical structures in proteins?
  A: They all have the same primary structure
* B: They are formed by hydrogen bonding between α-carbonyl and the α-amide groups four residues apart in the same chain
  C: They are formed by hydrogen bonding between α-carbonyl atom in a peptide bond and the side-chain hydrogen atoms on another amino acid in the same chain
  D: They are formed by hydrogen bonding between two adjacent amino acids in the primary sequence
  E: They are formed by hydrogen bonding between α-carbonyl and α-amino groups in adjacent polypeptide chains

43	0.58	74.79%	31.43%	0.43	0.34	B	3	*220	11	78	70	-	-	-	-	-	0	00:01
Question ID / Rev: 37475 / 1				-	-	% Selected	0.79	57.59	2.88	20.42	18.32	-	-	-	-	-	0.00	-
-	-	-	-	-		Point Biserial (rpb)	-0.03	0.34	-0.22	-0.16	-0.17	-	-	-	-	-	-	-

Q: A 7-month old baby presented with poor sucking ability and loss of head control and motor skills. He had poor appetite, vomited frequently, cried continuously, and had frequent seizures. His symptoms progressed rapidly, leading to generalized weakness, lack of muscle tone, and episodes of lactic acidosis, which caused his eventual death. Genetic analyses revealed a mutation in his mitochondrial DNA, leading to a decrease in the activity of Complex I and Complex IV, as the cause of his disease. Which of the following results would be expected in this patient's cells when compared to those of an unaffected individual?
  A: Increased ATP/ADP ratio in the mitochondria
* B: Increased ratio of NADH/NAD+ in mitochondria
  C: Increased rate of O2 consumption
  D: Increased oxidation of succinate
  E: Increase in the pH of mitochondrial matrix

44	0.89	100.00%	71.43%	0.29	0.48	B	20	*340	15	7	0	-	-	-	-	-	0	00:02
Question ID / Rev: 37472 / 1				-	-	% Selected	5.24	89.01	3.93	1.83	0.00	-	-	-	-	-	0.00	-
-	-	-	-	-		Point Biserial (rpb)	-0.35	0.48	-0.23	-0.20	0.00	-	-	-	-	-	-	-

Q: Which of the following is a characteristic of catabolic pathways?
  A: They are divergent
* B: They are inhibited by high [ATP]
  C: They are stimulated by a high energy charge
  D: They yield macromolecules as end products
  E: They are unregulated

45	1.00	100.00%	99.05%	0.01	0.06	A	*381	0	0	0	1	-	-	-	-	-	0	00:02
Question ID / Rev: 37470 / 1				-	-	% Selected	99.74	0.00	0.00	0.00	0.26	-	-	-	-	-	0.00	-
-	-	-	-	-		Point Biserial (rpb)	0.06	0.00	0.00	0.00	-0.06	-	-	-	-	-	-	-

Q: Apart from bringing the reactants close together, how does an enzyme serve to catalyze a reaction?
* A: Enzyme lowers the activation energy of the reaction
  B: Enzyme lowers the equilibrium constant of the reaction
  C: Enzyme provides the optimal temperature for the reaction
  D: Enzyme provides the optimal pH for the reaction
  E: Enzyme lowers the ΔG of the reaction

46	0.81	94.96%	59.05%	0.36	0.46	C	39	9	*311	7	16	-	-	-	-	-	0	00:02
Question ID / Rev: 37468 / 1				-	-	% Selected	10.21	2.36	81.41	1.83	4.19	-	-	-	-	-	0.00	-
-	-	-	-	-		Point Biserial (rpb)	-0.33	-0.29	0.46	-0.08	-0.11	-	-	-	-	-	-	-

Q: Hemoglobin A1c differs from HbA by which of the following?
  A: Amino acid sequence
  B: Serine phosphorylation
* C: Valine glycation
  D: Intracellular location
  E: Rate of degradation

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Unanswered	Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J			
47	0.80	97.48%	55.24%	0.42	0.40	B	54	*304	16	0	7	-	-	-	-	-	1	00:02
Question ID / Rev: 37452 / 2			-	-	% Selected	14.14	79.58	4.19	0.00	1.83	-	-	-	-	-	0.26	-
-	-	-	-	-	Point Biserial (rpb)	-0.21	0.40	-0.28	0.00	-0.24	-	-	-	-	-	-	-

Q: Which of the following transporters in the intestinal epithelial cells ensures glucose efflux into the blood down its concentration gradient?
  A: SGLT-1
* B: GLUT-2
  C: GLUT-4
  D: GLUT-7
  E: SGLT-2

48	0.94	99.16%	85.71%	0.13	0.30	A	*359	5	13	1	4	-	-	-	-	-	0	00:03
Question ID / Rev: 37460 / 1			-	-	% Selected	93.98	1.31	3.40	0.26	1.05	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	0.30	-0.07	-0.25	-0.06	-0.15	-	-	-	-	-	-	-

Q: Every metabolic pathway has a rate-limiting step. This step is characterized by which of the following features?
* A: It has the highest energy of activation
  B: It is reversible
  C: It is always the committed step
  D: It is usually at equilibrium
  E: It is catalyzed by a membrane-bound enzyme

49	0.84	94.96%	72.38%	0.23	0.21	C	52	8	*322	0	0	-	-	-	-	-	0	00:02
Question ID / Rev: 37445 / 2			-	-	% Selected	13.61	2.09	84.29	0.00	0.00	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	-0.17	-0.11	0.21	0.00	0.00	-	-	-	-	-	-	-

Q: Measurement of which of the following cardiac markers is the "gold standard" in the diagnosis of acute myocardial infarction during the first 24 hours?
  A: Troponin C
  B: Lactate dehydrogenase
* C: Troponin T
  D: Myoglobin
  E: Myosin

50	0.92	99.16%	83.81%	0.15	0.26	D	5	0	3	*350	24	-	-	-	-	-	0	00:04
Question ID / Rev: 37459 / 1			-	-	% Selected	1.31	0.00	0.79	91.62	6.28	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	-0.13	0.00	-0.16	0.26	-0.17	-	-	-	-	-	-	-

Q: A 5-year old white male is brought to the emergency room with a fracture of his right forearm that he sustained after falling off a couch. This is the fifth fracture that the child sustained in the past 2 years. Pertinent findings in the physical examination include a bluish sclera, slightly deformed arms and legs due to poor healing of past fractures, and poor posture. This patient most likely has a genetic defect in the synthesis of:
  A: Elastin
  B: Keratin
  C: Fibrillin
* D: Type I Collagen
  E: Type III Collagen

51	0.77	90.76%	61.90%	0.29	0.29	E	23	4	6	55	*294	-	-	-	-	-	0	00:02
Question ID / Rev: 37455 / 1			-	-	% Selected	6.02	1.05	1.57	14.40	76.96	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)	-0.17	-0.22	-0.18	-0.10	0.29	-	-	-	-	-	-	-

Q: An 18-year-old woman has gastroenteritis with nausea and vomiting and is able to ingest only small amounts of water. After 3 days, she develops light-headedness, especially when sitting or standing. Arterial blood gas analysis is most likely to show which of the following sets of values for pH / PCO2 (mm Hg) / [bicarbonate] (mEq/L)?
  A: 7.30 / 28 / 15
  B: 7.30 / 55 / 27
  C: 7.40 / 40 / 24
  D: 7.50 / 30 / 22
* E: 7.50 / 47 / 35

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J	Unanswered	
52	0.98	100.00%	91.43%	0.09	0.32	E	5	2	1	1	*373	-	-	-	-	-	0	00:01
Question ID / Rev: 313 / 8				-	-	% Selected	1.31	0.52	0.26	0.26	97.64	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.24	-0.13	-0.11	-0.13	0.32	-	-	-	-	-	-	-

Q: A 70-year-old man has bruising, loose teeth, and swollen, bleeding gums. He has lived alone since the death of his wife 2 years ago. His diet consists primarily of cola and hot dogs. Which of the following is the most likely diagnosis?
    A: Osteogenesis imperfecta tarda
    B: Osteogenesis imperfecta congenita
    C: Ehlers-Danlos syndrome
    D: Menkes disease
 * E: Scurvy

53	0.86	99.16%	67.62%	0.32	0.36	D	10	8	20	*327	17	-	-	-	-	-	0	00:03
Question ID / Rev: 106 / 10				-	-	% Selected	2.62	2.09	5.24	85.60	4.45	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.09	-0.14	-0.29	0.36	-0.14	-	-	-	-	-	-	-

Q: Which of the following types of interaction (linkages) found in proteins is most appropriately matched with the structural feature that follows?
    A: Ionic bonds: alpha-helix
    B: Salt bridges: beta-pleated sheet
    C: Hydrogen bonds: covalent cross-links
 * D: Hydrophobic interactions: tertiary structure
    E: Disulfide bonds: quaternary structure

54	0.90	98.32%	75.24%	0.23	0.34	D	4	3	0	*344	31	-	-	-	-	-	0	00:02
Question ID / Rev: 37453 / 1				-	-	% Selected	1.05	0.79	0.00	90.05	8.12	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.17	-0.11	0.00	0.34	-0.28	-	-	-	-	-	-	-

Q: A researcher conducting an in vitro experiment on intestinal glucose transport added oubain,a sodium transport inhibitor. Which of the following results would be most expected in this experiment regarding glucose transport?
    A: Increased transport via GLUT-4
    B: Increased transport via GLUT-5
    C: Increased transport via GLUT-7
 * D: Decreased transport via SGLT-1
    E: Decreased transport via SGLT-2

55	0.98	100.00%	97.14%	0.03	0.15	B	1	*376	0	0	5	-	-	-	-	-	0	00:03
Question ID / Rev: 37448 / 1				-	-	% Selected	0.26	98.43	0.00	0.00	1.31	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.27	0.15	0.00	0.00	-0.04	-	-	-	-	-	-	-

Q: A 20-year-old man with a history of Type I diabetes is brought to the emergency department with a 3-day history of feeling ill. He is non-adherent with his insulin. Urine is positive for ketones and serum glucose is elevated. His arterial pH is 7.30; PCO2 is 19 mm of Hg, HCO3- is 9 mEq/L, Cl- is 100 mEq/L and Na+ is 136 mEq/L. Which of the followng describes the acid-base disorder in this patient?
    A: Respiratory acidosis
 * B: Elevated anion gap metabolic acidosis
    C: Normal anion gap metabolic acidosis
    D: Metabolic alkalosis
    E: Mixed acid-base disorder

56	0.67	84.87%	54.29%	0.31	0.21	C	9	38	*257	48	30	-	-	-	-	-	0	00:01
Question ID / Rev: 37447 / 1				-	-	% Selected	2.36	9.95	67.28	12.57	7.85	-	-	-	-	-	0.00	-
-	-	-	-	-	-	Point Biserial (rpb)	-0.04	-0.08	0.21	-0.13	-0.09	-	-	-	-	-	-	-

Q: The release of O2 from hemoglobin is brought about by allosteric effectors. One important allosteric effector of Hb is 2,3-BPG (bisphosphoglycerate). Which of the following conditions would increase the concentration of serum 2,3-BPG?
    A: Sickle cell trait
    B: Respiratory acidosis
 * C: High altitude
    D: Exposure to hyperbaric oxygen
    E: Exposure to carbon monoxide

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J	Unanswered	
57	0.87	95.80%	72.38%	0.23	0.30	B	6	*334	0	10	32	-	-	-	-	-	0	00:01
Question ID / Rev: 37434 / 1				-	-	% Selected	1.57	87.43	0.00	2.62	8.38	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.21	0.30	0.00	-0.25	-0.12	-	-	-	-	-	-	-

Q: A protein kinase is an enzyme which promotes the phosphorylation of other proteins/enzymes. A kinase belongs to which of the following classes of enzymes?
   A: Oxidoreductase
 * B: Transferase
   C: Hydrolase
   D: Lyase
   E: Ligase

58	0.90	99.16%	71.43%	0.28	0.40	C	7	27	*343	4	1	-	-	-	-	-	0	00:44
Question ID / Rev: 25991 / 5				-	-	% Selected	1.83	7.07	89.79	1.05	0.26	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.11	-0.38	0.40	-0.02	-0.13	-	-	-	-	-	-	-

Q: A 10-year old diabetic child is exhibiting symptoms of metabolic ketoacidosis. The oxygen binding curve of hemoglobin for this patient is likely to exhibit which of the following?
   A: A negative Bohr effect
   B: A shift to the left
 * C: A shift to the right
   D: No change
   E: Loss of cooperativity

59	0.84	97.48%	64.76%	0.33	0.38	D	6	5	4	*321	46	-	-	-	-	-	0	00:36
Question ID / Rev: 26283 / 10				-	-	% Selected	1.57	1.31	1.05	84.03	12.04	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.31	-0.23	-0.04	0.38	-0.21	-	-	-	-	-	-	-

Q: Norepinephrine can act as an alpha-adrenergic receptor agonist in cardiac myocytes to activate the Gq signaling pathway. In such cells, identify in the attached figure the molecule marked by '?' which can interact with both diacylglycerol (DAG) and Ca++:
   A: Protein kinase A (PKA)
   B: Adenylyl cyclase
   C: Protein kinase B (PKB)
 * D: Protein kinase C (PKC)
   E: CaM kinase

60	0.98	100.00%	95.24%	0.05	0.21	D	3	1	0	*375	3	-	-	-	-	-	0	00:39
Question ID / Rev: 26048 / 6				-	-	% Selected	0.79	0.26	0.00	98.17	0.79	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.10	-0.11	0.00	0.21	-0.15	-	-	-	-	-	-	-

Q: Given an enzyme reaction of A→B where B can cause a pathological condition, why would a competitive inhibitor of the enzyme not be a good choice for treatment?
   A: Competitive inhibitors cannot affect the substrate binding site
   B: Competitive inhibition is rare in drug treatment
   C: Affinity of the enzyme for the substrate is already greater than that for the Inhibitor
 * D: Accumulated substrate would overcome the inhibition
   E: Overcoming the inhibition requires new enzyme synthesis

61	0.81	96.64%	63.81%	0.33	0.39	A	*311	23	20	18	9	-	-	-	-	-	1	00:15
Question ID / Rev: 26047 / 5				-	-	% Selected	81.41	6.02	5.24	4.71	2.36	-	-	-	-	-	0.26	-
-	-	-	-	-	Point Biserial (rpb)		0.39	-0.21	-0.11	-0.15	-0.30	-	-	-	-	-	-	-

Q: See the attached Table. Given the following data of initial velocity versus substrate concentration for an enzyme reaction, estimate the Km value of this enzyme for the substrate:
 * A: 1.5
   B: 2.0
   C: 2.5
   D: 3.0
   E: 5.0

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)											Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J	Unanswered	
62	0.82	94.12%	60.00%	0.34	0.40	D	32	2	1	*313	34	-	-	-	-	-	0	00:03
Question ID / Rev: 26043 / 6				-	-	% Selected	8.38	0.52	0.26	81.94	8.90	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.24	-0.12	-0.10	0.40	-0.26	-	-	-	-	-	-	-

Q: Which of the following cellular or subcellular compartments becomes more acidic during the operation of mitochondrial electron transport chain?
    A: Mitochondrial matrix
    B: Cytoplasm
    C: Endoplasmic reticulum
  * D: Mitochondrial intermembrane space
    E: Mitochondrial inner membrane

	Correct Responses																	
63	0.85	97.48%	66.67%	0.31	0.35	A	*324	9	14	1	34	-	-	-	-	-	0	00:53
Question ID / Rev: 26024 / 6				-	-	% Selected	84.82	2.36	3.66	0.26	8.90	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		0.35	-0.12	-0.09	-0.01	-0.32	-	-	-	-	-	-	-

Q: A 5-month old infant presents with pallor and moderate splenomegaly. Her hemoglobin levels are low and her blood contains increased levels of HbA2, HbF and some alpha tetramers. She is most likely to be suffering from which of the following diseases?
  * A: β-Thalassemia major
    B: Sickle cell disease
    C: Hb Bart disease
    D: Osteogenesis imperfecta
    E: α-Thalassemia

	Correct Responses																	
64	0.96	100.00%	86.67%	0.13	0.41	C	2	2	*365	10	3	-	-	-	-	-	0	01:30
Question ID / Rev: 26017 / 4				-	-	% Selected	0.52	0.52	95.55	2.62	0.79	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.23	0.02	0.41	-0.25	-0.33	-	-	-	-	-	-	-

Q: Fetal and maternal erythrocytes have the same concentration of 2,3-BPG (Bisphosphoglycerate). However compared to maternal hemoglobin (HbA), Fetal hemoglobin (HbF) has higher oxygen affinity, which facilitates transplacental diffusion of oxygen. Presence of which of the following polypeptide chains in HbF accounts for this finding?
    A: Alpha chains
    B: Beta chains
  * C: Gamma chains
    D: Epsilon chains
    E: Alpha and beta chains

	Correct Responses																	
65	0.93	99.16%	80.95%	0.18	0.27	A	*356	2	12	4	7	-	-	-	-	-	1	03:04
Question ID / Rev: 653 / 6				-	-	% Selected	93.19	0.52	3.14	1.05	1.83	-	-	-	-	-	0.26	-
-	-	-	-	-	Point Biserial (rpb)		0.27	-0.10	-0.15	-0.24	-0.09	-	-	-	-	-	-	-

Q: A decrease of blood pH from 7.5 to 6.5 would be accompanied by which of the following changes in ion concentration?
  * A: A 10-fold increase in hydrogen ion concentration
    B: A 10-fold increase in hydroxyl ion concentration
    C: An increase in hydrogen ion concentration by a factor of 7.5/6.5
    D: A decrease in hydrogen ion concentration by a factor of 6.5/7.5
    E: A shift in concentration of buffer anions, with no change in hydrogen ion concentration

	Correct Responses																	
66	0.78	93.28%	60.00%	0.33	0.40	C	46	18	*298	13	7	-	-	-	-	-	0	00:24
Question ID / Rev: 111 / 15				-	-	% Selected	12.04	4.71	78.01	3.40	1.83	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.18	-0.33	0.40	-0.17	-0.03	-	-	-	-	-	-	-

Q: How is Complex II different from the other three complexes of the electron transport chain?
    A: It is not located in the inner mitochondrial membrane
    B: It is the the only Complex that donates electrons to Coenzyme Q
  * C: It does not pump protons out
    D: It is inhibited by antimycin A
    E: It is the first Complex that accepts electrons from Complex I

Question #	Correct Responses			Disc. Index	Point Biserial	Correct Answer	Response Frequencies (*Indicates correct answer)										Unanswered	Avg Answer Time
	Diff(p)	Upper	Lower				A	B	C	D	E	F	G	H	I	J		
67	0.86	96.64%	72.38%	0.24	0.37	C	12	27	*330	13	0	-	-	-	-	-	0	01:19
Question ID / Rev: 29764 / 2				-	-	% Selected	3.14	7.07	86.39	3.40	0.00	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.25	-0.24	0.37	-0.12	0.00	-	-	-	-	-	-	-

Q: A drug company has developed a series of drugs that act as inhibitors of an enzyme. The attached figure shows the kinetic data from several such drugs. The line marked "Control" represents the enzyme reaction in the absence of any effectors. Each lettered line represents the data in the presence of a specific drug. Which line would be the most consistent with the action of a drug that is a structural analog (mimic) of the substrate?
A: A
B: B
* C: C
D: D
E: E

68	0.79	94.96%	57.14%	0.38	0.42	D	3	64	12	*303	0	-	-	-	-	-	0	01:07
Question ID / Rev: 26025 / 5				-	-	% Selected	0.79	16.75	3.14	79.32	0.00	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.07	-0.32	-0.26	0.42	0.00	-	-	-	-	-	-	-

Q: Some symptoms of Menkes disease such as kinky, brittle hair and sagging facial features can be explained by defects in collagen fibers. This is caused by improper distribution of copper in the body. Which of the following enzymes involved in collagen processing and cross-linking is affected by the deficiency of copper?
A: Prolyl hydroxylase
B: Lysyl hydroxylase
C: Procollagen peptidase
* D: Lysyl oxidase
E: Glucosyltransferase

69	0.92	98.32%	76.19%	0.22	0.39	E	14	14	3	0	*351	-	-	-	-	-	0	01:02
Question ID / Rev: 34327 / 2				-	-	% Selected	3.66	3.66	0.79	0.00	91.88	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.24	-0.29	-0.07	0.00	0.39	-	-	-	-	-	-	-

Q: Digestion of carbohydrates involves many different organs. Which of the following organs is responsible for inactivation of salivary amylase?
A: Pancreas
B: Mouth
C: Duodenum
D: Colon
* E: Stomach

70	0.93	100.00%	79.05%	0.21	0.47	D	13	3	6	*354	5	-	-	-	-	-	1	01:05
Question ID / Rev: 34326 / 2				-	-	% Selected	3.40	0.79	1.57	92.67	1.31	-	-	-	-	-	0.26	-
-	-	-	-	-	Point Biserial (rpb)		-0.32	-0.13	-0.21	0.47	-0.23	-	-	-	-	-	-	-

Q: Canagliflozin and Dapaglifozin are SGLT-2 inhibitors that are now being used to help treat Type 2 diabetics. What is the rationale for using this type of medication?
A: They block the Na+/K+ ATPase which prevents sugar absorption in liver
B: They inhibit the disaccharidases on the intestinal apical surface
C: They increase the GLUT-4 transporters by stimulating insulin secretion by the pancreas
* D: They decrease renal tubular reabsorption of glucose
E: They inhibit glucose release via hepatic glucose-6-phosphatase

71	0.77	91.60%	56.19%	0.35	0.38	D	23	16	20	*293	30	-	-	-	-	-	0	01:16
Question ID / Rev: 34403 / 2				-	-	% Selected	6.02	4.19	5.24	76.70	7.85	-	-	-	-	-	0.00	-
-	-	-	-	-	Point Biserial (rpb)		-0.11	-0.04	-0.24	0.38	-0.27	-	-	-	-	-	-	-

Q: Allosteric proteins usually contain multiple subunits. Which of the following interactions would not be involved in holding the subunits together?
A: Hydrogen bonds
B: Ionic bonds
C: Hydrophobic interactions
* D: Disulfide bonds
E: Metal ions

Q1
None.
nah
It is fair exam. I do not have any comments for now.
For the question about Tisha's acid-base disorder. We agreed in class that her elevated anion gap indicated metabolic acidosis which was most likely due to her ingesting aspirin. But aspirin would not classify as a poison in my opinion. So then
N/A
Question 7:Complex II is anchored in the innermembrane (it does not passes completely through the membrane)
n/a
Exam was fair
N/A
N/A
N/A
N/A
Fair Exam.
nothing
no comment
It was a fair exam, thank you
N/A
N/A
Which of the following intestinal epithelial cells allow glucose efflux down its concentration gradient? The question seems a little misleading because it can be either GLUT2 or SGLT-1, which ultimately allow glucose into the blood. SGLT-1 is found
I love Biochemistry.
Fair Exam.
n
N/A
N/A
At this time I dont have any questions about the exam.
thank you
No Questions
nope
As for the amino acid questions we were told not to know much on them just the structures and there were many questions asking for specific qualities of one amino acids.
no
N/A
N/A
N/A
N/A
I thought this was a fair exam. Thank you.
N/A
N/A
nn
No comments or concerns.
None

N/A
For the Question "The brain is very dependent on glucose..." SGLT-1 and 2 are the closest choices, but wouldnt a more appropriate answer be SGLT-3 which allows glucose uptake into neurons?
N/A
no questions at this time.
"We are the music makers, we are the dreamers of dreams."
NICE EXAM
N/A
Hi
fair exam.
N/A
N/A
not yet
No comment
For the question regarding the 3rd amino acid residue in the formation of collagen (triple helix), I put glycine as the best answer. The collagen is strucutred as Glycine, X, Y with X typically being Proline and Y typically being hydroxyproline or
No.
None.
N/A
I have nothing to say yet
More review on specific diseases
No questions
N/A
- Regarding the question on inhibition by PRPP amidotransferase by IMP, AMP and GMP... there are 2 possible answers. It is an example feedback inhibition by the process of competitive inhibition. Competitive inhibition is the more specific
N/A
No answer.
N/A
N/A
N/A
N/A
Was a tough test, but I believe it was fair
FAIR EXAM
N/A
N/A
N/A
For the question relating to Richard clinical vignette 3, doesn't CO have a higher affinity than O2 does which would lead to a left shift, as opposed to CO having a lower affinity than O2. CO has nearly 10x the affinity that O2 does.Every third
NO
no
No, thank you.
Fair
N/A
nothing yet

For question #15 since patient had HbA2 and HbF should answer be B-thalasemia minor not major? The other answer choices were not showing a Beta disorder.
This seems a bit more in-depth and challenging than the review materials and study time available allowed preparation for.
Very good.
No comments
N/A
No comment.
N/A
N/A
Questions with answers A-B B-E should be simplified to A-A B-B etc
No
No comment.
N/A
The theophylline question seems to imply that the increase in cAMP leads to increased activation of Gs. However, the converse is true, since activation of Gs then leads to increased cAMP, which relieves symtoms of obstructive lung diseases.
In general --> make a distinction between ionic bonds and ionic interactions Please explain how the concentration of substrate = Km and what vmax is.
NA
N/A
none
no comments at this time
Not as of now, thank you!
N/A
N/A
ok
None
None
no complaints
N/A
Well written exam, though it may have been nice to have included questions comparable to the difficult questions on this exam in the weekyl practice questions or the clickers.
The exam was pretty straight forward. I felt that some were not fully discussed in class and still were tested.
N/A
N/A
Idk why this here lol jk
The q about HbF and what kind of chains are in it - it would have been better if instead of writing out the greek letters (i.e. epsilon, gamma), that you put in the actual symbols instead because knowledge of greek letters should not be required.A
N/A
N/A
None at the moment.
no
N/A
N/A
disulfide bond are found in Quanterity structures -- google said that last night , but slides say that quanterity lacks disulfide bondsCO doesnt result in right shift, or taut formation... there is no right answer choice for cvED is due to mess up of Elas
N/A

The question about the suicide inhibition had ooptions both about having the same value on the Y axis and having the same apparent Km. seems redundant
exam
N/A
N/A
N/A
fair exam thank you
n/a
N/A
I am not sure if we went over hepatitis and what is the cause and effect of it, so I feel that question is more difficult than the others for us to answer.
The questions were fair. Some questions might needed to be worded a little more, but other than that, I think this exam was fair. For example, the increasing BPG question should have a little bit more infor in my opinion.
h
pulmanory embolism--we went over it but I feel like it wasn't emphasized as much in the course (discuss mechanism)
N/A
No comments. Have a nice day!
N/A
no
No.
no
No problems
N/A
N/A
X
n/a
N/A
Nothing.
35. I was confused to where is complex 2 located?38. I was confused in one was under micheal mentens kinetics doesn't it mean that independednt? 49. what do you mean by divergent in relationship to catabolic metabolism?2. what do you
No concerns noted thus far; will update if circumstances change.
No.
just started
n/a
na
none
n/a
NO
None
N/A
no comments
n/a
Question about the skin fibroblasts and every 3rd amino acid in triple helix can be read two ways- either the amino acid appearing 33% of the time or 3rd position amino acid, which would be Y from (Gly-X-Y).

N/A
No comments
nothing at the moment.
No complaints!
N/A
Not so bad:)
no
The test was fair and well designed
no
N/A
n/a
N/A
fair exam
N/A
It was fair
N/A
Fair exam.
N/A
no comments
N/A
N/A
I do not have any questions
fair, but the drug company - analog question I was unsure of how to answer.
.
Nothing.
Good exam. No complaints.
N/A
For the question utilizing Oubain to inhbit Na transport. It was never specified whether the drug only localizes to the Small intestine (though I assumed it did and chose SGLT-1). As such both SGLT-1 and 2 utilize this Na transport and could be
One question stated that Crohn's is the inflammation of the small intestine but I thought that it was the inflammation of the colon. I answered based on the small intestine because I assumed that was the key part of the question.
N/A
N/A
N/A
No comments
N/A
Long exam
For the question about sodium nitrite, I think it would be clearer if you replaced the word sequester with compete. I almost picked the other answer because of the word "compete" in the answer choice "nitrites compete with.. "
No
N/A
N/A
N/A
N/A
N/A

No comments.
N/A
None.
N/A
For question that Asks for the inactivation of salivary amalyse, it is both the pancreas and duodenum because pancreatic amalyse is produced by the Pancreas but hits the chyme in the duodenum. For the question of which metabolic regulators
Some of the phrasing of questions were very misleading.
In the question about Tisha...I understand that she has a mixed acid/base disorder as seen in her "perfect" pH, PCO2, and Hco3-, however, I also see that she has metabolic acidosis due to elevated anion gap wich would be from the increase in
.
N/A
This was a fair exam.
N/A
N/A
none
N/A
There's a question that asks, "which of the following trasnporters in the intestinal epithelial cells ensures glucose efflux in the blood down its concentration gradient?" the glucose transport in the epithelial cells are SGLT-1 but they do not ensure
no
none
n/a
For the question regarding allosteric effectors and 2,3-BPG, one of the answer choices mentions hyperbaric oxygen. Is hyperbaric oxygen the same thing as 100% O2? I wasn't familiar with the term from class.
None
no
N/A
N/A
Thank you.
blue eyes and poor posture is due to OI. Can you tell a difference between heriditary and tarda with the answer choices? Type one or type two.
N/A.
The question about the guy who went into cardiac arrest following CN poisoning, the answers are confusing. I was under the impression that CN affected the Fe3+ in complex IV not the cytocrome C oxidase.
N/A
exam well written
For question 71, all amino acids listed are hydrophobic, therefore all can be seen within the membrane.
NO
None at this time. Thank you.
N/A
comments
No feedback
NO COMMENTS
I like the exam. Hope I do well!
NO QUESTION
***

The question regarding the negative regulation of PRPP was confusing as I thought allosteric regulation would have been the most appropriate answer.The 18 year old with gasteroenteritis was a tricky question as well.
No issues.
None
n/a
N/A
Straight forward questions, no complaints.
N/A
^_^
N/A
N/A
.
none
thanks
Qs 47 - diagram and wording of qs slightly unclear
No, thank you
N/A
N/A
N/A
Fair exam, well written.
N/A
No
N/A
N/A
N/A
PHONE RINGING OF THE PROCTER WAS DISTRACTING.
N/A
I do believe that there is a typo in questions 29 where AKB was written as "PKt"
None
Questions are fair.
no comments
No
Question 5 Regarding Glucose Transport into the brain - I thought GLUT3 transporters were responsible for neurons getting glocuose yet that is not an answer choice Question 67 regarding Clinical Vignette 1 - Tisha has metabollic acidosis from the
the question about which of the following take the longest in regards to metabolic regulation, I chose the answer saying the modulation of gene expression since this is one of the ways to control enzyme/substrate concentration and that is the
N/A
no
I go all around the world and yet I stay in one place. What am I ? .... A stamp.
N/A
The question about what lead to Jasmines sick cell crisis is a bit confusing. I thought sickle cell disease was a genetic condiiton and the mutation is what leads to sickling, not any extraneous factors. The sickling of the cells is due to the
none-
No.

Overall I thought the test felt very fairly representative and well-written. Theophylline question was the only one I thought could be rewritten to be a little more clear. Thanks.
For question 33, none of the answers are correct. It is a misleading question. A) Complex III receives electrons from Complex IB) Although it is part of the TCA cycle, which is located in the matrix, it is still located in the IMM along with the
none
N/A
So far so good
N/A
no comments
N/A
Fair exam.
Question with line-burke plot asking about competitive inhibition, the letters did not correspond to lines making choosing the right letter tough.Question asking about increasing [BPG], I dont remember learning about what affects levels of [BPG],
Fair Exam, some terms need to be anotated for better understanding ex: Hydrops Fetalis
no
N/A
No questios or comments. The exam was fair
N/A
N/A
n/a
No, Thanks for everything
.....
no
#3: The graph was difficult to read. Perhaps use different patterns for each line so you can follow the lines easier. #7: There was a lot of confusion on what is best to measure when a patient has a myocardial infarction. Using a term/phrase in
No.
thank you
Challening!
Everything is fine.
no
no
N/A
N/A
None
None so far. Thanks
N/A
no response
N/A
N/A
In regards to the concentration of 2,3 BPG and what would affect it... high altitude means less O2 available for ETC and eventually back up of glycolysis?
N/A
ON question 69- the options are Troponin C & Troponin T--- The correct answer is Troponin I- and that is what we discussed in class and in the lectures as being the gold standard for what should be used immediately after an MI. I would like to
For question 21. The enzyme works to increase the temperature of the reaction which in turn allows for decrease in the Activation energy of the reaction. Are both of these answers correct?

N/A
N/A
No comments.
No questions so far.
N/A
theres an issue with the ans choices regarding CN and nitriles - nitriles oxidize HbA to methHGB --> which then competes with CN for the binding site to complex 4. It doesnt sequester it. that wording throws ppl off and the other ans choice
N/A
.
exam
I do not have any questions or comments about the exam.
Great exam!
N/A
THANKS
The questions seemed fair for the most part. The question regarding intestinal glucose transport along its gradient was misleading. The wording was misleading. The question that asked about serum 2,3-BPG levels was confusing. I was unsure
For question 44, one of the answers says "absorption of disaccharides in the duodenum." Disacharrides are broken down into monsachharides and then absorbed. However, they are not absorbed in their disaccharide form. I'm not sure if this
n/a
The question regarding the phosphodiesterase inhibitor, the answer choices seems like the Direction of the arrows should be reveresed, leading to some confusion.
N/A
The question that asked how is complex II different from the other three complexes- the only answer that could fit for this reposne would be that complex II does not pump prontons out, however the reaction of FAD becoming FADH creates 6
Pretty fair exam if we are being honest. Great mix of easy questions and questions that require you to think several orders. The only question that was kind of weird was the one regarding G12V found in 90% of pancreatic cancers and the effect it
N/A
N/A
The questions were fair.
The Glut 3 transporter is the transporter to the brain not glut -2,
N/A
N/A
No, comments yet. Thank you!
N/A
All good.
N/A
none
N/A
N/A
none
No comment. Thanks.
N/A
The rxn coordinate question regarding the transition energy of the enzyme-catalyzed REVERSE reaction was confusing. I believe you mean the dotted line (enzyme-cat.) going from products to reactants. I think it is unnecessarily confusing.I was
The test was fair, though I am still confused regarding Tisha. Based on the clinical vignette discussion, we know that she has a mixed acid-base disorder. Just looking purely at her clinical lab reports, however, we calculate that she has elevated

that it was okay.
N/A
Biochem
All is well so far.
no
No comment.
not at this time
N/A
no
N/A
None
N/A
The exam was fair.
None
n/a
hjhjk
all in all questions were fair, some were very detailed. i have concerns with inadequate data for two questions 1. old couple with SOB and lethargy came to ER 2x given 100% O2 and fine: it was hard to differentiate between HbS and CO-Hb because
N/A
.
NONE
N/A