

Graduate	Engineering							
Subject Matter Rep	ort by Major and PM E	xamination						
Board: Board Code: Major:	Kentucky 71 <b>Agricultural</b>	Sc	stitution: hool Code: / Exam:	Kentucky_ U 7101 Civil-Water F	-			
		Institution	State	National		Comp	arator Group	ings
Examinees Taking		2	2	48		41	1	6
Examinees Passing	3	0	0	30		26	0	4
Examinees Passing %		0	0	62		63	0	67
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Breadth - Environm	ental	8	62	77	1.4	77	88	75
Breadth - Geotechr	nical	8	50	48	1.5	47	50	58
Breadth - Structura	l	8	50	61	1.4	62	25	60
Breadth - Transport		8	69	64	1.4	64	50	69
Breadth - Water Re	sources	8	75	68	1.3	69	38	65
Hydraulics		12	50	61	2.1	61	58	60
Hydrology		8	38	64	1.4	64	62	69
Water Treatment		6	58	59	1.2	59	33	67
Environmental		10	40	45	1.5	44	30	53
Geotechnical		4	25	46	1.0	49	25	25

\* The standard deviation above is based on number of questions correct not percentage of questions correct.

\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate	Engineering							
Subject Matter Rep	oort by Major and PM Examinat	tion						
Board: Board Code: Major:	Kentucky 71 <b>Chemical</b>	Institution: Kentucky_University of School Code: 7101 PM Exam: Environmental						
		Institution State National			Comp	arator Group	ings	
Examinees Taking		1	2	87		49	2	34
Examinees Passing	g	1	2	32		27	2	2
Examinees Passing	g %	100	100	37		55	100	6
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Wastewater		11	45	33	1.7	37	45	28
Storm Water		6	17	45	1.4	48	75	38
Potable Water		11	45	52	2.0	58	64	43
Water Resources		6	67	51	1.2	58	50	41
Ambient Air		8	100	62	1.7	66	88	54
Emissions Sources	;	4	75	34	0.8	35	50	33
Control Strategies		8	75	50	1.8	52	81	44
Municiple Solid Wa	ste (MSW), Commercial, and I	nd. 10	70	38	1.8	45	35	28
Hazardous Waste,	Special, and Radioactive Wast	te 10	50	51	1.6	52	65	45
Environmental Ass	essments	8	38	49	1.4	53	69	44
Remediation		8	62	56	1.6	61	75	45
Public Health and S	Safety	10	50	41	1.5	45	50	35

\* The standard deviation above is based on number of questions correct not percentage of questions correct.

\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate	Engineering							
Subject Matter Re	eport by Major and PM E	Examination						
Board: Board Code: Major:	Kentucky 71 <b>Civil</b>	Sc	titution: hool Code: I Exam:	Kentucky_ U 7101 Civil-Enviror	-			
		Institution	Institution State National			Comp	arator Group	ings
Examinees Takin	xaminees Taking		3	130		68	21	34
Examinees Passi	•	0	0	29		22	2	4
Examinees Passi	aminees Passing %		0	22		32	10	12
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Breadth - Enviror	mental	8	88	76	1.6	82	65	71
Breadth - Geotec	hnical	8	46	48	1.5	53	36	47
Breadth - Structu	ral	8	67	62	1.4	70	51	54
Breadth - Transpo	ortation	8	58	61	1.6	66	57	53
Breadth - Water F	Resources	8	33	56	1.7	61	51	50
Wastewater Trea	tment	7	33	31	1.6	38	18	26
Biology		9	56	45	1.9	50	40	40
Solid/Hazardous	Waste	5	60	47	1.2	51	42	43
Groundwater & W	Vell Fields	5	47	48	1.0	51	49	39
Geotechnical		4	33	55	1.0	58	49	54
Water Resources	;	10	40	50	1.9	55	42	42

\* The standard deviation above is based on number of questions correct not percentage of questions correct.

\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate E	ngineering									
Subject Matter Report by	/ Major and PM Examinat	tion								
Board Code: 7	entucky 1 <b>ivil</b>	School Code: 71 PM Exam: Civ		School Code:		Kentucky_ University of 7101 <b>Civil-Geotechnical</b>				
		Institution	nstitution State National			Comp	parator Group	ings		
Examinees Taking		2	9	775		337	107	219		
Examinees Passing		2	6	362		206	53	62		
Examinees Passing %		100	67	47		61	50	28		
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **		
Breadth - Environmental		8	88	66	1.8	72	67	60		
Breadth - Geotechnical		8	81	62	1.7	66	66	58		
Breadth - Structural		8	69	68	1.5	72	69	65		
Breadth - Transportation	I	8	100	67	1.6	72	70	62		
Breadth - Water Resourd	ces	8	81	53	1.6	57	54	47		
Subsurface Exploration a	& Sampling	4	75	54	1.0	60	51	48		
Engineering Properties &	Soil Mechanics	8	56	46	1.4	47	45	43		
Foundations		8	44	37	1.6	42	37	31		
Earth Retaining Structure	es & Seismic Engineering	j 6	58	41	1.3	45	41	36		
Environmental		4	38	40	1.0	44	40	37		
Structural		8	56	44	1.5	48	43	40		
Transportation		2	100	59	0.8	67	61	50		

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Graduate	Engineering							
Subject Matter Re	eport by Major and PM E	Examination						
Board: Board Code: Major:	Kentucky 71 <b>Civil</b>	So	Institution: Kentucky_ University of School Code: 7101 PM Exam: Civil-Structural					
		Institution	stitution State National			Comp	arator Group	ings
Examinees Takin	g	1	2	613		385	89	115
Examinees Passi	-	1	2	324		228	36	48
Examinees Passing %		100	100	53		59	40	42
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Breadth - Environ	mental	8	88	69	1.8	71	65	65
Breadth - Geotecl	hnical	8	62	62	1.7	65	58	56
Breadth - Structur	al	8	88	82	1.3	85	79	78
Breadth - Transpo	ortation	8	38	68	1.5	69	64	66
Breadth - Water F	Resources	8	62	56	1.7	58	53	51
Loading/Analysis		7	71	53	1.5	56	49	49
Mechanics of Mat	erials/Materials	8	62	43	1.5	44	38	42
Member Design		8	25	42	1.5	43	42	39
Design Criteria		3	67	48	0.8	50	51	43
Geotechnical		10	40	48	2.0	50	41	44
Transportation		4	75	56	1.1	59	52	52

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\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate	Engineering							
Subject Matter Re	eport by Major and PM Exa	amination						
Board: Board Code: Major:	Kentucky 71 <b>Civil</b>	Scl	Institution: School Code: PM Exam: Institution State		niversity of ortation			
		Institution				Comp	arator Group	ings
Examinees Takin	g	43	53	1,880		1,091	322	366
Examinees Passi	-	19	23	775		521	131	85
Examinees Passi	Examinees Passing %		43	41		48	41	23
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Breadth - Environ	mental	8	74	66	1.7	69	66	59
Breadth - Geotec	hnical	8	51	50	1.5	51	49	46
Breadth - Structu	ral	8	62	64	1.4	66	63	61
Breadth - Transpo	ortation	8	67	71	1.4	73	71	66
Breadth - Water F	Resources	8	55	55	1.6	57	55	50
Traffic Analysis		11	57	56	1.9	58	54	51
Transportation Pla	anning/Construction	7	68	62	1.4	64	62	55
Geometric Desigr	n/Traffic Safety	8	53	54	1.5	55	54	49
Geotechnical		5	62	63	1.0	65	63	59
Water Resources		9	56	57	1.9	60	58	51

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Graduate	Engineering									
Subject Matter Re	eport by Major and PM I	Examination								
Board: Board Code: Major:	Kentucky 71 <b>Civil</b>	Sc	School Code: 7101		School Code:		Kentucky_ University of 7101 <b>Civil-Water Resources</b>			
		Institution	titution State National		Comp	arator Group	ings			
Examinees Taking		13	20	1,438		757	263	328		
Examinees Passing		7	10	744		448	145	114		
Examinees Passing %		54	50	52		59	55	35		
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **		
Breadth - Environ	imental	8	74	73	1.6	76	74	66		
Breadth - Geotec	hnical	8	55	51	1.5	53	51	48		
Breadth - Structu	ral	8	65	65	1.5	66	64	63		
Breadth - Transpo	ortation	8	63	66	1.5	68	65	62		
Breadth - Water F	Resources	8	63	62	1.5	64	61	57		
Hydraulics		12	58	58	2.0	60	58	52		
Hydrology		8	57	59	1.5	61	58	53		
Water Treatment		6	54	52	1.5	54	54	45		
Environmental		10	47	43	1.7	45	42	39		
Geotechnical		4	29	37	1.0	37	37	32		

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Graduate	Engineering							
Subject Matter Repo	ort by Major and PM Examinat	ion						
Board: Board Code: Major:	Kentucky 71 <b>Civil</b>	Institution: Kentucky_University of School Code: 7101 PM Exam: Environmental						
		Institution	State	National		Comp	arator Group	ings
Examinees Taking		2	2	67		51	7	5
Examinees Passing		1	1	38		33	3	1
Examinees Passing	%	50	50	57		65	43	20
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Wastewater		11	41	37	1.5	40	34	24
Storm Water		6	75	51	1.2	54	40	47
Potable Water		11	45	58	2.1	60	51	56
Water Resources		6	67	56	1.1	59	50	37
Ambient Air		8	69	66	1.7	71	48	42
<b>Emissions Sources</b>		4	38	27	0.9	29	18	20
Control Strategies		8	50	51	1.9	53	54	32
Municiple Solid Was	te (MSW), Commercial, and I	nd. 10	55	46	1.7	48	41	38
Hazardous Waste, S	Special, and Radioactive Wast	te 10	45	54	1.6	56	50	50
Environmental Asse	ssments	8	69	53	1.6	58	27	42
Remediation		8	69	63	1.6	66	70	38
Public Health and Sa	afety	10	30	40	1.6	41	37	28

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\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate	Engineering							
Subject Matter Rep	oort by Major and PM Examina	tion						
Board: Board Code: Major:	Kentucky 71 <b>Civil</b>	cky Institution: Kentucky_ University of School Code: 7101 PM Exam: <b>Structural I</b>						
		Institution	State	National		Comp	arator Group	ings
Examinees Taking		1	1	321		227	40	41
Examinees Passin		0	0	119		85	18	9
Examinees Passin	g %	0	0	37		37	45	22
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Analysis of Structu	res-Loads	6	67	67	1.2	65	69	70
Analysis of Structu	res-Lateral Forces	6	50	61	1.2	61	62	57
Analysis of Structu	res-Lateral Forces Distribution	9	0	44	2.1	45	42	44
Analysis of Structu	res-Methods	4	25	56	0.9	56	59	55
Design and Details	of Structures-General Structu	ral ( 6	67	71	1.0	72	71	71
Design and Details	of Structures-Steel (AISC-AA	SHT 15	47	56	2.7	57	60	51
Design and Details	of Structures-Concrete (AASH	HTO 12	42	66	2.1	66	69	59
Design and Details	of Structures-Wood (NDS-AS	D) 7	29	52	1.5	52	57	45
Design and Details	of Structures-Masonry (ACI 5	30-L 7	43	50	1.3	49	55	44
Design and Details	of Structures-Foundations & F	Reta 8	50	44	1.7	44	46	40

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Graduate	Engineering							
Subject Matter Re	eport by Major and PM Examina	ation						
Board: Board Code: Major:	Kentucky 71 <b>Electrical</b>	Sc	titution: hool Code: I Exam:	Kentucky_ Ur 7101 Electrical & C	niversity of Computer-Con	nputer		
		Institution	State	National		Comparator Groupings		
Examinees Takin	q	1	1	66		26	14	19
Examinees Passi		1	1	44		22	11	8
Examinees Passi	ng %	100	100	67		85	79	42
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Basic ELE - Profe	essionalism and Engineering Ec	conor 2	50	88	0.5	90	89	84
Basic ELE - Safe	ty & Reliability	3	100	77	0.8	87	81	63
Basic ELE - Elect	ric Circuits	10	100	52	2.3	61	54	43
	ric & Magnetic Field Theory & A	Appli(1	100	70	0.5	85	64	58
Basic ELE - Com	puter Systems & Engr	2	100	88	0.5	94	86	79
Electronics, Circu	its & Components - Componen	ts 6	67	55	1.3	66	49	54
Electronics, Circu	its & Components - Materials	2	50	53	0.6	46	64	47
Controls & Comm	nunications Systems	6	83	39	1.5	44	39	31
Power - Transmis	sion & Distribution	5	20	34	1.2	38	37	26
	Machines & Elecromagnetic De		100	60	0.9	59	74	58
General EE Knov	vledge - Interpret of Codes & St	anda 2	50	48	0.7	52	57	39
General EE Knov	vledge - Microprocessor Systen	ns 2	50	54	0.7	56	61	55
Hardware - Digita	I Electronics	6	33	62	1.6	68	70	49
Hardware - Desig	In Analysis	8	25	48	1.5	54	53	39
Hardware - Syste	ms	4	100	48	1.1	53	50	41
Software - Syster	n Software	5	40	62	1.3	66	76	51
Software - Develo	opment/Applications	9	67	54	1.9	62	60	41
Networks		4	50	67	1.1	73	70	62

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Graduate	Engineering							
Subject Matter Rep	ort by Major and PM Examin	ation						
Board: Board Code: Major:	Kentucky 71 <b>Electrical</b>	Sc	titution: nool Code: I Exam:	Kentucky_ U 7101 Electrical &	niversity of Computer-ECC			
		Institution	State	National		Comp	Comparator Groupings	
Examinees Taking		3	6	141		51	8	57
Examinees Passing		1	2	53		28	4	14
Examinees Passing	%	33	33	38		55	50	25
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Basic ELE - Profess	sionalism and Engineering E	conor 2	100	88	0.5	97	100	78
Basic ELE - Safety	& Reliability	3	78	76	0.8	83	83	74
Basic ELE - Electric	: Circuits	10	57	53	2.3	59	64	48
Basic ELE - Electric	& Magnetic Field Theory &	Appli(1	100	83	0.4	90	88	82
Basic ELE - Compu	ter Systems & Engr	2	100	88	0.5	92	100	84
Electronics, Circuits	& Components - Components	nts 6	44	54	1.5	57	62	51
Electronics, Circuits	& Components - Materials	2	67	49	0.7	56	38	43
Controls & Commu	nications Systems	6	33	51	1.7	60	54	45
Power - Transmissi	on & Distribution	5	40	40	1.2	42	48	40
Power - Rotating M	achines & Elecromagnetic D	evice 3	56	64	0.9	76	62	54
General EE Knowle	dge - Measurement & Instru	ment: 2	17	22	0.6	17	6	27
General EE Knowle	dge - Interpret of Codes & S	standa 1	0	16	0.4	14	12	19
General EE Knowle	dge - Computer Systems	1	67	33	0.5	27	25	40
Electronics - Electri	c Circuit Theory	4	17	18	0.8	15	16	18
Electronics - Electri	c & Magnetic Field Theory &	Appl 3	33	26	0.8	26	33	26
Electronics - Comp	onents & Circuits	7	33	27	1.1	29	29	26
Control System Fur	Idamentals	4	42	14	0.7	14	3	14
Control System Des	sign/Implementation	2	0	18	0.5	16	12	23
Controls - Stability		4	25	32	0.7	30	34	34
Communications &	Signal Processing	6	11	21	0.9	22	19	22
Communications - I	Voise & Interference	3	33	23	0.6	27	12	20
Telecommunication	S	3	44	27	0.7	26	21	28

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Graduate	Engineering							
Subject Matter Rep	oort by Major and PM Examina	tion						
Board: Board Code: Major:	Kentucky 71 <b>Electrical</b>	Sc	titution: hool Code: I Exam:	Kentucky_ Ur 7101 Electrical & C	niversity of Computer-Pow	er		
		Institution State National Comparate		arator Group	ings			
Examinees Taking Examinees Passin	•	5 4	9 5	709 325		315 174	116 52	209 82
Examinees Passin	g %	80 # Exam Questions	56 Institution AVG % Correct	46 National AVG % Correct	National Standard Deviation *	55 Carnegie 1 AVG % Correct **	45 Carnegie 2 AVG % Correct **	39 Carnegie 3 AVG % Correct **
Basic ELE - Profes	sionalism and Engineering Ec	onor 2	60	89	0.5	90	90	87
Basic ELE - Safety	& Reliability	3	87	72	0.8	77	71	69
Basic ELE - Electri	c Circuits	10	40	45	1.9	47	44	43
Basic ELE - Electri	c & Magnetic Field Theory & A	pplic1	80	72	0.4	73	70	74
Basic ELE - Comp	uter Systems & Engr	2	90	82	0.6	86	75	83
Electronics, Circuit	s & Components - Component	is 6	63	49	1.2	51	49	47
Electronics, Circuit	s & Components - Materials	2	60	42	0.7	48	45	37
Controls & Commu	inications Systems	6	53	35	1.4	36	36	35
Power - Transmiss	ion & Distribution	5	48	44	1.2	48	44	40
Power - Rotating M	lachines & Elecromagnetic De	vice 3	53	62	0.9	66	63	60
General Power - M	leasure, Instrument & Statistic	s 2	60	70	0.7	75	70	67
General Power - S	pecial Applications	1	80	70	0.5	73	66	68
General Power - C	odes, Standards & Special Ap	pls 3	80	54	0.9	57	55	50
Circuit Analysis - A	nalysis	6	63	56	1.3	60	54	52
Circuit Analysis - D	evices and Power Electronic (	Circu 3	40	28	0.8	30	32	24
Circuit Analysis - E	lectric and Magnetic Fields an	d Ar 2	20	44	0.7	46	41	45
Rotating Machines		7	83	68	1.3	70	68	66
Electromagnetic D	evices	4	25	33	1.0	38	33	28
Transmission & Dis	strib - Systems Analysis	6	37	45	1.1	47	46	42
Transmission & Dis	strib - Power System Performa	ince 2	60	68	0.7	70	75	64
Transmission & Di	strib - Protection	4	80	64	0.9	67	63	59

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Graduate	Engineering							
Subject Matter Re	eport by Major and PM Examina	tion						
Board: Board Code: Major:	Kentucky 71 <b>Engr Physics/Engr Scie</b> n	Institution: School Code: PM Exam:		Kentucky_ University of 7101 <b>Civil-Water Resources</b>				
		Institution	State	National		Comp	arator Group	ings
Examinees Taking	Examinees Taking		1	8		6	1	1
Examinees Passi	-	1	1	4		4	0	0
Examinees Passi	ng %	100	100	50		67	0	0
	-	# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Breadth - Environ	mental	8	62	70	1.8	69	62	88
Breadth - Geotech	hnical	8	38	48	2.1	50	50	38
Breadth - Structur	ral	8	88	69	1.2	67	75	75
Breadth - Transpo	ortation	8	75	69	1.8	73	62	50
Breadth - Water F	Resources	8	75	59	2.0	67	50	25
Hydraulics		12	75	55	1.9	57	58	42
Hydrology		8	75	62	2.1	62	75	50
Water Treatment		6	83	52	1.6	53	17	83
Environmental		10	30	38	2.5	42	20	30
Geotechnical		4	75	44	1.0	50	0	50

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\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate E	Engineering							
Subject Matter Report b	y Major and PM Examina	tion						
Board Code: 7	Kentucky 71 <b>Mechanical</b>	Institution: School Code: PM Exam:		Kentucky_ University of 7101 <b>Fire Protection</b>		Com	ereter Crown	ingo
		Institution		National			arator Group	•
Examinees Taking		3	3	48		26	15	6
Examinees Passing		0	0	14		9	4	1
Examinees Passing %		0	0	29		35	27	17
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
FP Analysis - Type of A	nalysis	10	67	60	1.5	59	67	47
FP Analysis - Information	on Sources for Analysis	6	44	63	1.3	62	64	61
FP Management		8	50	57	1.5	56	56	62
Fire Science & Human	Behavior - Fire Dynamics	8	33	58	1.7	58	57	65
Fire Science & Human	Behavior - Human Respor	nse 4	50	44	1.1	52	35	33
FP System - Water-Bas	ed Fire Suppression System	ems 10	57	54	2.2	54	53	47
FP System - Special Ha	azard Systems	4	25	35	1.1	30	43	33
FP System - Fire Detec	tion and Alarm Systems	7	62	59	1.2	60	57	60
FP System - Smoke Ma	anagement Systems	4	33	64	0.9	62	68	58
FP System - Explosion	Protection and Prevention	۱Sy:3	56	54	0.9	60	49	39
Passive Building Syster	ns - Building Construction	10	53	60	1.8	63	55	57
Passive Building Syster	ms - Means of Egress	6	39	49	1.7	45	56	47

\* The standard deviation above is based on number of questions correct not percentage of questions correct.

\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate	Engineering								
Subject Matter Report b	by Major and PM Examination	on							
Board Code:	Kentucky 71 <b>Mechanical</b>	S	nstitution: School Code: PM Exam:	Kentucky_ University of 7101 Industrial					
		Institutio	n State	National		Comparator Groupings			
Examinees Taking		1	1	7		2	4	1	
Examinees Passing		1	1	5		2	2	1	
Examinees Passing %		100	100	71		100	50	100	
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **	
Facilities Engineering 8	Planning - Facility Require	me 8	88	86	1.1	94	81	88	
Facilities Engineering 8	Planning - Facility Design	Alt 8	88	86	1.1	94	81	88	
Systems Analysis & De	sign - Analysis & Design Pr	oc 10	70	76	1.3	75	70	100	
Systems Analysis & De	sign - Costing & Performan	ce 6	83	76	1.0	83	71	83	
Logistics - Production F	Planning & Control	12	58	75	2.7	79	67	100	
Logistics - Distribution &	& Storage-Warehousing Me	thc 4	50	54	1.1	50	44	100	
Work Design - Methods	to Measure Work	5	80	54	1.0	60	45	80	
Work Design - Methods	B Design & Analysis	5	60	74	1.0	60	75	100	
Ergonomics & Safety -	Risk Factors & Exposure Li	mil 6	83	69	0.9	67	67	83	
Ergonomics & Safety -	Design Issues	4	25	57	1.0	38	69	50	
Quality Engineering - Q	uality Control	8	88	70	1.0	81	62	75	
Quality Engineering - R	eliability & Maintainability	4	100	75	0.6	88	69	75	

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\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate	Engineering							
Subject Matter Report	by Major and PM Examina	ition						
Board Code:	Kentucky 71 <b>Mechanical</b>	Institution: School Code: PM Exam:		Kentucky_ Ur 7101 <b>Mechanical-H</b>	-			
		Institution	State	National		Comparator Groupings		
Examinees Taking		2	7	406		189	65	119
Examinees Passing		2	6	215		122	28	49
Examinees Passing %		100	86	53		65	43	41
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
General - Codes & Standards - Engineering Principle 6		ciple 6	83	68	1.4	73	62	63
General - Codes & Sta	Indards - Fundamental Eng	gine 5	80	68	1.1	73	62	65
General - Codes & Sta	Indards - Interpretation of (	Code 1	100	60	0.5	60	57	64
Machine Design & Mat	terials - Principles	5	50	48	1.2	50	46	47
Machine Design & Mat	terials - Applications	2	100	63	0.6	66	68	54
Hydraulics & Fluids - P	Principles	4	75	56	1.1	60	49	55
Hydraulics & Fluids - A	pplications	3	83	73	0.9	74	73	71
Energy Conversion/Po	wer Systems - Principles	4	62	65	1.0	68	63	60
Energy Conversion/Po	wer Systems - Analysis of	Sys 3	67	62	0.9	65	53	59
HVAC & Refrigeration	- Principles	7	86	64	1.5	68	58	62
Fundamentals - Psych	rometrics	5	70	56	1.3	61	51	52
Fundamentals - Princip	oles	9	72	56	1.7	60	53	51
Equipment and Materia	als	14	64	46	2.5	50	42	42
Applications - Systems	3	9	67	50	2.1	56	47	42
Applications - Supporti	ve Knowledges	3	50	60	0.9	62	51	60

\* The standard deviation above is based on number of questions correct not percentage of questions correct.

\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate	Engineering							
Subject Matter Repor	t by Major and PM Examina	ition						
Board: Board Code: Major:	Kentucky 71 <b>Mechanical</b>	Sc	titution: hool Code: 1 Exam:	Kentucky_ Ur 7101 <b>Mechanical-N</b>	niversity of <b>/achine Design</b>			
		Institution	State	National		Comp	arator Group	ings
Examinees Taking		1	2	341		205	55	62
Examinees Passing		0	1	199		130	33	27
Examinees Passing 9	%	0	50	58		63	60	44
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
General - Codes & Standards - Engineering Principle 6			67	69	1.3	71	72	62
General - Codes & Si	tandards - Fundamental Eng	gine 5	100	67	1.2	69	65	63
General - Codes & St	tandards - Interpretation of (	Code 1	100	89	0.3	89	93	82
Machine Design & Ma	aterials - Principles	5	60	61	1.1	63	64	54
Machine Design & Ma	aterials - Applications	2	0	50	0.7	53	48	41
Hydraulics & Fluids -	1	4	25	57	1.1	61	55	50
Hydraulics & Fluids -		3	33	70	0.9	73	72	64
•.	ower Systems - Principles	4	75	67	1.0	68	64	65
	ower Systems - Analysis of	Sys <sup>-</sup> 3	67	62	1.0	63	69	54
HVAC & Refrigeration	-	7	57	50	1.6	53	48	44
Engineering Principle		18	39	52	2.9	55	52	48
Machine Design - Co		14	29	53	2.8	55	54	49
Applications - System		4	25	57	1.0	57	56	54
Applications - Suppor	tive Knowledge	4	75	50	1.0	54	51	36

\* The standard deviation above is based on number of questions correct not percentage of questions correct.

\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate	Engineering							
Subject Matter Rep	port by Major and PM Examina	ation						
Board: Board Code: Major:	Kentucky 71 <b>Mechanical</b>	Sc	Institution: Kentucky_University of School Code: 7101 PM Exam: <b>Mechanical-Thermal &amp; Flu</b> i		ds			
		Institution	State	National		Comp	arator Group	ings
Examinees Taking		1	4	357		204	42	88
Examinees Passin	g	1	1	179		112	17	36
Examinees Passin	g %	100	25	50		55	40	41
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
General - Codes & Standards - Engineering Principle 6			83	71	1.3	75	62	65
General - Codes &	Standards - Fundamental En	gine: 5	80	67	1.2	70	68	59
General - Codes &	Standards - Interpretation of	Code 1	100	70	0.5	73	69	64
Machine Design &	Materials - Principles	5	40	51	1.3	53	53	46
Machine Design &	Materials - Applications	2	0	51	0.7	54	55	43
Hydraulics & Fluid	s - Principles	4	75	61	1.1	63	60	57
Hydraulics & Fluid	s - Applications	3	67	74	0.8	75	67	74
•.	n/Power Systems - Principles	4	75	72	0.9	73	73	68
Energy Conversior	n/Power Systems - Analysis of	Sys 3	0	68	1.0	68	70	64
HVAC & Refrigera	tion - Principles	7	86	56	1.6	59	52	49
Fundamentals - Er	ngineering Principles	9	56	50	1.8	52	49	46
Fundamentals - Su	upportive Knowledges	4	25	49	1.2	52	43	44
Components - Hyc	Iraulic System Components	6	50	49	1.5	50	45	48
Components - Pov	ver Plant Components	8	25	49	2.0	50	46	47
Applications - Syst	em Applications	10	50	47	1.9	48	47	45
Applications - Sup	portive Knowledges	3	100	75	0.9	78	72	65

\* The standard deviation above is based on number of questions correct not percentage of questions correct.

\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate	Engineering							
Subject Matter Rep	ort by Major and PM Exami	nation						
Board: Board Code: Major:	Kentucky 71 <b>Mechanical</b>	Sc	titution: hool Code: 1 Exam:	Kentucky_ University of 7101 <b>Mining &amp; Mineral</b>				
		Institution	State	National		Comp	arator Group	ings
Examinees Taking		1	1	1		1	0	0
Examinees Passing	9	0	0	0		0	0	0
Examinees Passing	g %	0	0	0		0	0	0
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Exploration: Metho	ds & techniques	2	0	0	0.0	0	0	0
Exploration: Deposits modeling		1	0	0	0.0	0	0	0
Exploration: Geo co	onditions modeling	2	100	100	0.0	100	0	0
Exploration: E&E re	esources/reserves	3	0	0	0.0	0	0	0
Mine Plan/Oper: M	ethods & layouts	9	33	33	0.0	33	0	0
Mine Plan/Oper: Ed	quip, Fac, Systems	12	83	83	0.0	83	0	0
Mine Plan/Oper: E8	<u> </u>	7	86	86	0.0	86	0	0
Mine Plan/Oper: O	&M mines & systems	6	67	67	0.0	67	0	0
Mineral Proc: Lab &	& Pilot T&A	4	50	50	0.0	50	0	0
Mineral Proc: D&E	process flowsheets	9	22	22	0.0	22	0	0
Mineral Proc: P&D	equip, fac & systems	10	30	30	0.0	30	0	0
Mineral Proc: O&M	•	3	67	67	0.0	67	0	0
	M & PE characterization	3	67	67	0.0	67	0	0
Env & Reclaim: M8	P impact design	4	25	25	0.0	25	0	0
Env & Reclaim: O8	M Env Plan	2	50	50	0.0	50	0	0
Env & Reclaim: Clo	ose & Reclaim site	3	33	33	0.0	33	0	0

\* The standard deviation above is based on number of questions correct not percentage of questions correct.

\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined



Graduate	Engineering							
Subject Matter Re	eport by Major and PM Exami	nation						
Board: Board Code: Major:	Kentucky 71 <b>Mining/Mineral</b>	Sc	Institution: Kentucky_ University of School Code: 7101 PM Exam: <b>Mining &amp; Mineral</b>					
		Institution	State	National		Comp	arator Groupings	
Examinees Takin	g	7	7	37		21	9	0
Examinees Passi	ng	3	3	20		11	7	0
Examinees Passi	ng %	43	43	54		52	78	0
		# Exam Questions	Institution AVG % Correct	National AVG % Correct	National Standard Deviation *	Carnegie 1 AVG % Correct **	Carnegie 2 AVG % Correct **	Carnegie 3 AVG % Correct **
Exploration: Meth	ods & techniques	2	36	35	0.6	31	44	0
Exploration: Deposits modeling		1	14	54	0.5	43	67	0
Exploration: Geo	conditions modeling	2	43	51	0.7	48	61	0
Exploration: E&E	resources/reserves	3	52	50	0.8	54	41	0
Mine Plan/Oper: I	Methods & layouts	9	62	70	1.2	69	75	0
Mine Plan/Oper: I	Equip, Fac, Systems	12	77	75	1.8	75	77	0
Mine Plan/Oper: I	E&D ground Control	7	63	64	1.3	65	68	0
Mine Plan/Oper: 0	O&M mines & systems	6	62	60	1.3	66	46	0
Mineral Proc: Lab	o & Pilot T&A	4	61	55	1.3	56	58	0
Mineral Proc: D&	E process flowsheets	9	46	54	1.9	51	64	0
Mineral Proc: P&I	D equip, fac & systems	10	46	48	1.9	48	54	0
Mineral Proc: O&	M plants & facilities	3	67	77	0.7	73	81	0
Env & Reclaim: S	, M & PE characterization	3	48	44	0.8	43	56	0
Env & Reclaim: N	1&P impact design	4	50	52	1.2	51	58	0
Env & Reclaim: C	0&M Env Plan	2	79	81	0.5	74	94	0
Env & Reclaim: C	Close & Reclaim site	3	81	74	0.6	75	70	0

\* The standard deviation above is based on number of questions correct not percentage of questions correct.

\*\* Carnegie 1 - Research Extensive, Carnegie 2 - Research Intensive, Carnegie 3 - Masters I and II combined