

Group Examination Analysis

Test Code: 7973, v1 - Certified Manufacturing Technologist (CMfgT)
 Test Date: 12/01/2012
 Number of Candidates: 38
 Site Code: 7555

Examination Analysis	
Number of Candidates:	38
Low Score:	35
Mean:	82
High Score:	115
Number of Questions:	136
Pass Score:	82
International Average:	59.0%
Standard Deviation:	17.7
Standard Error of the Measurement:	5.6
KR20:	0.91

CMfgT

2012年12月1日に東京・名古屋で受験された38名の試験結果の分析です。タイトルは、テキストおよび2010年の“Body of Knowledge”に合わせて整理されています。

Group Examination Performance

Level/Title	# of Items in Section	Total Items Seen by Group	Total Items Passed by Group	Performance	Percent
1 1.1 Mathematics	4	152	98		64.5%
1.1.1 Algebra	1	38	37		97.4%
1.1.2 Trigonometry	2	76	35		46.1%
1.1.3 Analytical Geometry	1	38	26		68.4%
2 1.2 Applied and Engineering Sciences	8	304	255		83.9%
1.2.1 Metrication/SI System	1	38	28		73.7%
1.2.2 Physics	2	76	62		81.6%
1.2.5 Dynamics	2	76	65		85.5%
1.2.6 Fluid Mechanics	1	38	30		78.9%
1.2.7 Thermodynamics/Heat Transfer	1	38	33		86.8%
1.2.8 Electrical Circuits/Electronics	1	38	37		97.4%
3 1.3 Materials Application	4	152	97		63.8%
1.3.1 Metals (Properties and Applications)	2	76	65		85.5%
1.3.2 Plastics/Polymers (Properties and Applications)	1	38	12		31.6%
1.3.3 Composites (Properties and Applications)	1	38	20		52.6%
4 2.1 Product Design and Development	14	532	373		70.1%
2.1.5 Simulation/Engineering Design Analysis	1	38	28		73.7%
2.1.6 Concurrent Engineering	1	38	18		47.4%
2.1.7 Design for X (Mfg/Assy/Maint/etc.)	2	76	51		67.1%
2.1.8 Drafting/Drawing/Engineering Graphics/Modeling	5	190	138		72.6%
2.1.9 CAD/CAM/CAE Applications	3	114	90		78.9%
2.1.10 Tolerance Analysis/GD & T	2	76	48		63.2%
5 2.2 Process Design and Development	2	76	46		60.5%
2.2.6 Rapid Prototyping	2	76	46		60.5%
6 3.1 Manufacturing Process Applications and Operation	19	722	449		62.2%
3.1.1 Material Removal Processes	3	114	78		68.4%
3.1.2 Fabrication Processes	2	76	44		57.9%
3.1.3 Hot and Cold Forming Processes	4	152	72		47.4%
3.1.4 Casting and Molding Processes	1	38	16		42.1%
3.1.6 Heat Treatment Processes	3	114	91		79.8%

Level/Title	# of Items in Section	Total Items Seen by Group	Total Items Passed by Group	Performance	Percent
6 3.1 Manufacturing Process Applications and Operation	19	722	449		62.2%
3.1.7 Joining, Welding, and Assembly Processes	3	114	85		74.6%
3.1.8 Finishing Processes	1	38	17		44.7%
3.1.10 Material Handling/Packaging	1	38	17		44.7%
3.1.11 Hand Tool Use/Machine Operating	1	38	29		76.3%
7 4.1 Production System Design and Development	14	532	248		46.6%
4.1.3 Process Planning and Development	3	114	46		40.4%
4.1.5 Production/Manufacturing System Design and Organization	1	38	9		23.7%
4.1.7 Tool and Equipment Selection	1	38	15		39.5%
4.1.9 Human Factors, Ergonomics, and Safety	8	304	155		51.0%
4.1.10 Maintenance Systems	1	38	23		60.5%
8 4.2 Equipment/Tool Design and Development	9	342	233		68.1%
4.2.1 Cutting Tool Design	1	38	26		68.4%
4.2.2 Work Holding Tool Design	2	76	59		77.6%
4.2.5 Machine Design	5	190	120		63.2%
4.2.6 Power Systems (Mech/Elec/Fluid)	1	38	28		73.7%
9 5.1 Automated Systems and Control	11	418	260		62.2%
5.1.2 CNC/PLC/Computer Control	8	304	186		61.2%
5.1.4 Information Technology/Database Systems (MIS, etc.)	2	76	45		59.2%
5.1.5 Enterprise-wide Systems Integration (MES, ERP, etc.)	1	38	29		76.3%
10 6.1 Quality and Customer Service	16	608	404		66.4%
6.1.1 Customer Focus (Research/Test/Satisfaction)	1	38	29		76.3%
6.1.3 Probability and Statistics	2	76	60		78.9%
6.1.4 Statistical Control Methods (Sampling/Charting/etc.)	3	114	34		29.8%
6.1.5 Problem Analysis and Solving (Fishbone/Pareto/FMEA/etc.)	2	76	57		75.0%
6.1.7 Capability Analysis (Process/Equipment/etc.)	1	38	26		68.4%
6.1.8 Inspection/Test/Validation	3	114	79		69.3%
6.1.9 Metrology	2	76	52		68.4%
6.1.11 Continuous Improvement/Lean	2	76	67		88.2%
11 7.1 Manufacturing Management	22	836	451		53.9%
7.1.1 Strategic Planning/Global Competitiveness	1	38	14		36.8%
7.1.2 Organizational Design and Management	4	152	98		64.5%
7.1.3 Project Management	2	76	37		48.7%
7.1.4 Personnel Management Methods	1	38	5		13.2%
7.1.5 Human Behavior/Motivation/Leadership	1	38	16		42.1%
7.1.6 Labor Relations	1	38	18		47.4%
7.1.8 Operations Research, Analysis, and Forecasting	1	38	14		36.8%
7.1.10 Accounting/Finance/Economics	5	190	114		60.0%
7.1.11 Business/Engineering Ethics and Social Responsibility	3	114	78		68.4%
7.1.12 Standards, Laws, and Regulations	3	114	57		50.0%
12 8.1 Personal Effectiveness	13	494	210		42.5%
8.1.2 Negotiating and Conflict Management	3	114	47		41.2%
8.1.3 Presentation Skills and Oral Communication	6	228	126		55.3%
8.1.4 Written Communication Skills	3	114	30		26.3%
8.1.5 Innovation and Creativity	1	38	7		18.4%