	LEAN BRONZE (TACTICAL)	LEAN SILVER (INTEGRATIVE)	LEAN GOLD (STRATEGIC)
WEIGHTINGS PER EXAM			
Module 1			
1.1. Principles of Cultural Enablers	3%	4%	5%
1.1.1. Respect for the Individual			
1.1.1.1. Respect			
1.1.1.2. Teamwork			
1.1.1.3. Create a Safety-based Workforce			
1.1.1.4. Develop, Empower, and Involve everyone			
1.1.1.5. Redeployment of Resources			
1.1.2. Humility			
1.1.2.1. Practicing Personal Humility			
1.1.2.2. Leading with Humility			
1.1.3. Drive Principle-based Behaviors			
1.1.3.1. Be a Role Model of the Lean Principles			
1.1.4. Create a Sense of Urgency			
1.2. Systems for Cultural Enablers	4%	8%	12%
1.2.1. Daily Accountability			
1.2.2. Integrating Learning and Coaching			
1.2.3. People Development (Education and Training, and Coaching)			
1.2.3.1. Leadership Development			
1.2.3.2. Workforce Development			
1.2.4. Motivation, Empowerment & Involvement			
1.2.4.1. Suggestion System (Kaizen Teian)			
1.2.5. Safety Systems (EHS)			
1.2.6. Health Systems (EHS)			
1.2.7. Human Resources			
1.2.7.1. Employee Survey			
1.2.7.2. Job Content Matrix (Lean Leader Matrix)			
1.2.7.3. Recognition			
1.3 Cultural Enabler Techniques and Practices	8%	8%	8%
1.3.1. Daily Accountability Techniques & Practices			
1.3.1.1. Accountability Board			
1.3.1.2. RACI Matrix			
1.3.2. Learning and Coaching Techniques & Practices			
1.3.2.1. Coaching Kata			
1.3.2.2. Improvement Kata			
1.3.2.3. Kata Improvement Board			

Continued...

	LEAN BRONZE (TACTICAL)	LEAN SILVER (INTEGRATIVE)	LEAN GOLD (STRATEGIC)
	WEIGHTINGS PER EXAM		
1.3.3. People Development Techniques & Practices			
1.3.3.1. Skills Assessment			
1.3.3.2. Instructional Goals			
1.3.3.3. On-the-Job Training			
1.3.3.4. Leaders are Teachers			
1.3.3.5. Training within Industry			
1.3.4. Motivation, Empowerment & Involvement Techniques & Practices			
1.3.4.1. Employee Involvement Teams (Process Teams)			
1.3.4.2. Leader Gemba Walks			
1.3.5. Suggestion System Techniques & Practices			
1.3.5.1. Idea (Suggestion) Form			
1.3.5.2. Idea (Suggestion) Board			
Module 2			
2. Continuous Process Improvement	60%	30%	15%
2.1. Principles of Continuous Process Improvement	15%	10%	6%
2.1.1. Process Focus			
2.1.1.1. Stabilize			
2.1.1.2. Recognize Abnormality			
2.1.1.3. Go and See			
2.1.2. Identification & Elimination of Barriers to Flow			
2.1.2.1. Flow & the Economies of Flow (One Piece Flow)			
2.1.2.2. Identify and Eliminate Waste			
- 7 Wastes, (Muda), Fluctuation (Mura) and Overburden (Muri)			
2.1.2.3. Connect & Align Value added work fragments			
2.1.2.4. Organize around flow			
2.1.2.5. Make end-to-end flow visible			
2.1.2.6. Manage the flow visually			
2.1.3. Match rate of production to level of customer demand - Just-in-Time			
2.1.3.1. Plan for Every Part (PFEP)			
2.1.4. Scientific Thinking			
2.1.4.1. Fact-based Approach			
2.1.4.2. Structured Approach			
2.1.5. Jidoka			
2.1.5.1. Quality at the source			
2.1.5.2. No defects passed forward			
2.1.5.3. Separate man from machine			
2.1.5.4. Multi-process handling			
2.1.5.5. Self detection of errors to prevent defects			
2.1.5.6. Stop and Fix			

Continued...

	LEAN BRONZE (TACTICAL)	LEAN SILVER (INTEGRATIVE)	LEAN GOLD (STRATEGIC)
WEIGHTINGS PER EXAM			
2.1.6. Integrate Improvement with Work			
2.1.7. Seek Perfection			
2.1.7.1. Incremental continuous improvement (Kaizen)			
2.1.7.2. Breakthrough Continuous Improvement (Kaikaku)			
2.1.8. Visual Management			
2.1.9. Closed Loop Systems to Provide Feedback for Driving Improvement			
2.2. Continuous Process Improvement Systems	20%	10%	7%
2.2.1. 5S			
2.2.2. Total Productive Maintenance (including predictive)			
2.2.3. Standard Work			
2.2.4. PDCA			
2.2.5. Corrective Action System			
2.2.6. Lean Process Design			
2.2.7. Lean Product Development (Product/Service Development)			
2.3. Continuous Process Improvement Techniques & Practices	25%	10%	2%
2.3.1. Process Design & Improvement Techniques & Practices			
2.3.1.1. Process Chart (Flowcharting)			
2.3.1.2. Value Stream Mapping			
2.3.1.3. Takt Time Analysis			
2.3.1.4. Product/Process Matrix			
2.3.1.5. Process Capacity Chart			
2.3.1.6. Line Balance			
2.3.1.7. Standard Work Combination Table			
2.3.1.8. Spaghetti Diagram			
2.3.1.9. Job Element Sheet			
2.3.1.10. Work Analysis Chart			
2.3.1.11. SIPOC			
2.3.1.12. Right-sized Equipment			
2.3.1.13. Work Cell Layout			
2.3.2. Data Collection and Presentation Techniques			
2.3.2.1. Histograms			
2.3.2.2. Pareto Charts			
2.3.2.3. Check Sheets			
2.3.3. Root Cause Analysis			
2.3.3.1. Cause & Effect Diagrams (Fishbone)			
2.3.3.2. 5-Why's			
2.3.3.3. Failure Mode and Effects Analysis			

Continued...

	WEIGHTINGS PER EXAM		
	LEAN BRONZE (TACTICAL)	LEAN SILVER (INTEGRATIVE)	LEAN GOLD (STRATEGIC)
2.3.4. Process Stability (Variation) Data Analysis			
2.3.4.1. Hour-by-Hour (Day-By-The-Hour) Charts			
2.3.4.2. Statistical Process Control Charts			
2.3.4.3. Scatter and Concentration Diagrams			
2.3.5. Lean Product/Service Design Techniques			
2.3.5.1. Concurrent Engineering			
2.3.5.2. Quality Function Deployment			
2.3.5.3. Product or Process Benchmarking			
2.3.5.4. Design for product Life Cycle (DFx) - (Cradle to Cradle)			
2.3.5.5. Variety Reduction - (Product and Component)			
2.3.5.6. Design for Manufacturability			
2.3.5.7. 3P Production Process Preparation			
2.3.6. Material Management			
2.3.6.1. Plan for Every Part (PFEP)			
2.3.6.2. Purchased Parts Supermarket			
2.3.6.3. Point-of-Use Storage			
2.3.6.4. Standardized Material Transfer			
- FIFO			
- Water Spider			
- Kitting			
- Milk Run			
- Pull System			
- Material Signals (Kanban)			
2.3.6.5. Warehouse Management & Storage Systems			
2.3.6.6. Order picking Systems			
2.3.7. Quality Techniques & Practices			
2.3.7.1. Mistake and Error Proofing (Poka Yoke)			
2.3.7.2. Sensible Automation (Autonomation)			
2.3.7.3. Source Inspection			
2.3.8. Production Leveling			
2.3.8.1. Lot Size Reduction			
2.3.8.2. Quick Changeover/Setup Reduction (SMED)			

Continued...

	LEAN BRONZE (TACTICAL)	LEAN SILVER (INTEGRATIVE)	LEAN GOLD (STRATEGIC)
	WEIGHTINGS PER EXAM		
Module 3			
3. Consistent Lean Enterprise Culture	10%	20%	30%
3.1. Principles of Consistent Lean Enterprise Culture	5%	7%	11%
3.1.1. Systemic Thinking			
3.1.1.1. Part-whole relationships are clear and explicit through holistic thinking			
3.1.1.2. The Organization evolves as necessary to accommodate future conditions through dynamic thinking			
3.1.1.3. Closed-loop thinking to assure effective feedback of organizational learning			
3.1.1.4. Align Systems and Strategy			
3.1.2. Constancy of Purpose			
3.1.2.1. Focus on Results			
3.1.2.2. Focus on Waste Elimination			
3.1.2.3. Focus on Value to Customer			
3.1.3. Social Responsibility			
3.1.4. Respect for Partners			
3.1.5. Long-Term Thinking in Management Decisions			
3.1.6. Standardize Daily Management			
3.1.7. Decisions made slowly but implemented rapidly			
3.1.8. Learning Organization			
3.2. Systems for Developing Consistent Lean Enterprise Culture	3%	6%	11%
3.2.1. Lean Management System			
3.2.1.1. Transformation Strategy			
3.2.1.2. Daily Management System			
3.2.1.3. Message Deployment - Establishing vision and direction			
3.2.2. Enterprise Architecture			
3.2.2.1. Value Stream Management			
3.2.2.2. Integrate Business and Improvement Systems			
3.2.2.4. Embedded Information Management System			
3.2.3. Strategic Planning/Policy Deployment/ (Hoshin Kanri)			
3.2.3.1. Scientific Thinking as a Strategy Process			
3.2.3.2. Series of nested experiments			
3.2.3.3. Dynamic give and take			
3.2.3.4. Forming Consensus			
3.2.3.5. Align Strategies and Execution			
3.2.3.6. Standard work for strategy communication (How we think and talk)			
3.2.3.7. Resource Deployment and Allocation			

Continued...

	LEAN BRONZE (TACTICAL)	LEAN SILVER (INTEGRATIVE)	LEAN GOLD (STRATEGIC)
	WEIGHTINGS PER EXAM		
3.2.4. Lean Supply Chain			
3.2.5. Lean Project Management			
3.2.6. Knowledge Transfer System			
3.2.6.1. Information Sharing (Yokoten)			
3.2.7. Quality Systems (ISO and others)			
3.2.8. Environmental Systems (EHS)			
3.3. Consistent Enterprise Culture Techniques & Practices	2%	7%	8%
3.3.1. Lean Management System Techniques & Tools			
3.3.1.1. Steering Committee (Lean Strategy)			
3.3.1.2. Leader Standard Work			
- Standard Meeting Schedule			
- Time Slicing Meetings			
3.3.1.3. Accountability Board			
3.3.1.4. Tier Meetings			
3.3.2. Strategic Planning/Policy Deployment Techniques & Practices			
3.3.3. Strategic Business Assessment			
3.3.3.1. Vision, Mission, True North			
3.3.3.2. SWOT Analysis, Porter's Five Forces, PEST			
3.3.3.3. Balanced Scorecard			
3.3.3.4. Catchball			
3.3.3.5. X-Matrix			
3.3.4. Knowledge Transfer Techniques & Practices			
3.3.4.1. A3			
3.3.4.2. Communication/Performance Management Board			
3.3.4.3. Cross Training			
3.3.4.4. Cross Training Matrix			
3.3.4.5. Best Demonstrated Practices Teams			
3.3.4.6. Cross Functional Teams			
3.3.5. Supply Chain Techniques & Practices			
3.3.5.1. Customer Collaboration (Consumption Rate, Customer Fill Rate)			
3.3.5.2. Inbound/Outbound Logistics			
- Inventory (Cycle, Buffer, & Safety Stock)			
- Cube Utilization Analysis (Packaging Strategy)			
- Transportation Strategy			
- Pipeline Visibility			
- Cross-docking			
- Hub and Spoke			

Continued...

	LEAN BRONZE (TACTICAL)	LEAN SILVER (INTEGRATIVE)	LEAN GOLD (STRATEGIC)
WEIGHTINGS PER EXAM			
3.3.5.3. Shipping/Receiving			
- Trailer Yard Planning			
- Shunt Schedule			
- Sleep Time			
3.3.5.4. Material Ordering			
- SIMPOC			
- Replenishment Strategy			
- Minimum Order Quantity (MOQ)			
- Lot Size			
- Cadence			
3.3.5.5. Supplier Collaboration			
- Supplier Prioritization			
- Supplier Engagement			
- Supplier Benchmarking			
- Supplier Development & Integration			
- Supplier Managed Inventory			
3.3.5.6. Planning and Scheduling			
- Demand Pull vs. Schedule Push			
- Every Part Every Interval (EPEx)			
- Make-to-Stock vs. Make-to-Order vs. Engineer-to-Order			
- Heijunka			
- Master Scheduling (Standard Schedule)			
Module 4			
4. Business Results	15%	30%	30%
4.1. Principles of Business Results	4%	10%	12%
4.1.1. Create Value first to drive performance			
4.1.1.1. Measure what matters to the customer			
4.1.1.2. Measure normal vs. abnormal conditions - (Triggers response)			
4.1.2. Align Behaviors to Performance			
4.1.3. Use Performance to Identify Cause and Effect Relationships			

Continued...

	WEIGHTINGS PER EXAM		
	LEAN BRONZE (TACTICAL)	LEAN SILVER (INTEGRATIVE)	LEAN GOLD (STRATEGIC)
4.1.4. Guidelines for Measurement Categories			
4.1.4.1. Customer Demand and Characteristics			
4.1.4.2. Customer Retention			
4.1.4.3. Waste			
4.1.4.4. People Development Measures			
4.1.4.5. Quality			
4.1.4.6. Cost and Productivity			
4.1.4.7. Competitive Impact			
4.1.4.8. Environmental, Health, & Safety			
4.1.4.9. Employee Engagement			
4.2 Measurement Systems	3%	10%	12%
4.2.1. Measurement System Characteristics			
4.2.1.1. Understand Interdependencies Between Measures and Measurement Categories			
4.2.1.2. Align Internal Measures with What Matters to Customers			
4.2.1.3. Measure the Results from the "Whole" System			
4.2.1.4. Measure Flow and Waste			
4.2.1.5. Lean Accounting			
4.2.1.6. Voice of the Customer			
4.2.2. Goal and Objective Setting			
4.2.2.1. SMART (Specific, Measurable, Achievable, Realistic, Timely)			
4.2.2.2. Tied to the Customer			
4.2.2.3. Difference between Goal and Target Condition			
4.2.3. Analysis - Understand what moves the dial on measures			
4.2.3.1. Cycles of PDCA			
4.2.3.2. Lessons Learned through Reflection			
4.2.4. Reporting			
4.2.4.1. Visible Feedback Real-Time			
4.2.5. Types of Measurement Systems			
4.2.5.1. Strategy Measurement			
4.2.5.2. Value Stream/Process Measurement			
4.2.5.3. Project Management			
4.2.5.4. Lean Accounting			
4.2.5.5. Voice of the Customer			
4.2.5.6. Quality			
4.2.5.7. Environmental, Health, & Safety			
4.2.5.8. Human Resources			

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	WEIGHTINGS PER EXAM		
	LEAN BRONZE (TACTICAL)	LEAN SILVER (INTEGRATIVE)	LEAN GOLD (STRATEGIC)
4.3. Key Lean Related Measures	8%	10%	6%
4.3.1. Quality			
4.3.1.1. Rework			
4.3.1.2. First Pass Yield			
4.3.1.3. Conversion Loss			
4.3.2. Delivery			
4.3.2.1. Takt Time			
4.3.2.2. Cycle Time			
4.3.2.3. Lead Time			
4.3.2.4. On-Time-Delivery			
4.3.2.5. Perfect-Order Execution			
4.3.3. Cost			
4.3.3.1. Inventory Turns			
- Average Days on Hand			
4.3.3.2. Queue Time			
4.3.3.3. Wait Time (Delays)			
4.3.3.4. Overall Equipment Effectiveness (OEE)			
4.3.3.5. Changeover Time			
4.3.3.6. Inventory Carrying Costs			
4.3.3.7. Value Stream Margin			
4.3.3.8. Cost per Unit			
4.3.3.9. Labor Hours per Unit			
4.3.4. Financial Impact			
4.3.4.1. Cash Flow			
4.3.5. Customer Satisfaction			
4.3.5.1. Customer Retention			
4.3.5.2. Customer Engagement			
4.3.6. EHS			
4.3.6.1. Near Misses			
4.3.6.2. EHS Engagement			
4.3.6.3. Energy Consumption			
4.3.6.4. Environmental Waste per Unit			
4.3.7. Human Resources			
4.3.7.1. Ideas per Employee			
4.3.7.2. Employee Retention			
4.3.7.3. Training Efficiency			