BOK - Broad Topics	Comprehension Level		Description
	GB	BB	
About Six Sigma	Apply	Analyze & Evaluate	Meaning of Six Sigma & its History, Roles & Responsibilities, Six Sigma Measurements including DPU, DPMO, RTY etc.
Business Process Management & Measurement	Apply	Analyze & Synthesize	Understanding Process & Org Process Design, Impact on Customer, Business and Employees, Critical to x - Quality, Cost, Process, Delivery; Measurement System Design and Alignment, Outcome Measures & KPIs, Financial Measures, COQ, ROI
Project Identification including definition & selection	Apply	Analyze & Evaluate	VOC - Segmentation, Identification & Feedback; Understanding Customer Requirements - CTQ drill down, QFD, Kano Model; Project Charter - Problem / Opportunity definition, Objectives & Goals, Scope & Constraints, Assumptions & Risks
Basic Statistical Concepts & Descriptive Statistics	Apply	Analyze & Synthesize	**Basic Data Concepts** - Continuous vs. discrete data; Measurement scales: nominal, ordinal, interval, and ratio; Effective sampling techniques: randomized, stratified, systematic, and representative; **Basic graphical tools**: stem-and-leaf plots, box-and-whisker plots, run charts, scatter diagrams, frequency distributions, histograms, etc.
Management Tools	Apply	Analyze & Evaluate	**Decision Making Tools** - Nominal Group Technique, Force Field Analysis, Multi Voting; **Management Tools** - Affinity Diagram, PDPC, Activity Network Diagrams, C&E Diagrams, Pareto Analysis, Scatter Plot
Team Management	Understand	Analyze & Evaluate	Team Dynamics - Team Stages, Common Team Problem, Group Think, Team Performance Factors
Basic Probability	Analyze	Analyze & Synthesize	Basic Probability & Statistics - Descriptive vs. inferential statistics; Sample statistics vs. population parameters; Basic probability concepts; Measures of central tendency: mean, median, and mode; Measures of dispersion: range, standard deviation, and variance
Discrete and Continuous Data Distributions	Apply	Analyze & Synthesize	Binomial, Poisson, Normal, Exponential, Chi-Square, t & F Distributions; Testing distribution assumptions: normal probability plots, skewness and Kurtosis, chi-square goodness-of-fit tests; Central limit theorem and sampling distribution of the mean
Measurement System Validation	Apply	Analyze & Evaluate	Precision & Accuracy, Bias, Lineraity & Stability, Gage R & R and its significance, Variable & Attribute MSA

Inferential Analysis	Apply	Analyze & Evaluate	Basics of Hypothesis testing - General Concepts, Goals, Significance - Practical vs. Statistical, Risks - Alpha vs Beta; Point and interval estimation: confidence intervals for means and proportions, prediction intervals, and tolerance intervals; Estimating sample sizes for confidence intervals and hypothesis tests; Hypothesis tests for population means, proportions, and variances with Normal Data - 1 & 2 sample t-tests, 1 sample variance, one way ANOVA including test for equal variance
Simple Linear Regression	Apply	Analyze & Synthesize	Simple Linear Regression - Regression Equation, Correlation and Residual Analysis; Regression Analysis of Attribute Data - Logistic Regression
Multiple Linear & Non Linear Regression	Understand	Analyze & Synthesize	Multiple Regression - Multiple Linear, Non Linear, Confidence & Prediction Interval, Residual Analysis, Data Transformation, Box Cox
Process Capability Analysis	Analyze	Analyze & Synthesize	Process Capabity Indices, Process Performance Indices, Short term vs Long term Capability, Process Capability for attribute Data, Process Capability for Non Normal Data, Process Performance vs. Specification Limit
Statistical Process Control Charts	Apply	Analyze & Synthesize	Concept of Statistical Process Control - Control Charts like I-MR, Xbar-R, Xbar-s, U, P, NP
Detail Process Analysis	Analyze	Analyze & Evaluate	Process Step Analysis, Input / Output Mapping, Loops in Process, Exception Handling
FMEA & Control Plan	Analyze	Analyze & Evaluate	Purpose and elements of FMEA, risk priority number (RPN), Process vs. Design FMEA, Process vs. Product / Service FMEA; Developing Control & Response Plan
Testing & Piloting Solutions	Apply	Analyze & Evaluate	Solution Selection - Feasibility & CBA, Developing Pilot Plan, Defining FMEA and Response Plan, Impact Assessment, Feedback & Refinement
DFSS	Understand	Analyze & Synthesize	Introduction to DFSS, Core Principles of DFSS, QFD, Design Development, Design Analysis & Review
Queueing Methods	Understand	Apply	Introduction to Queueing models and their application, Modelling real life problems on queueing methods, Role of Exponential Distribution, Pure Birth & Death models, Generalized Poisson Queues, Specialized Poisson Queues
Non-Parametric Methods	Apply	Analyze	Hypothesis Testing with Non Normal Data - Mann-Whitney, Kruskal-Wallis, Mood's Median, Friedman, Sample Sign, Sample Wilcoxon, One & Two sample Proportion, Chi-Square Contingency Table
Forecasting Models	Apply	Analyze	Forecasting Models and their use, Time Series Methods like Moving Average, Exponential Smoothing, Linear Prediction; Causal Method like Linear Regression

Mathematical Programming	Understand	Apply	Introduction to Linear Programming Problems, Types of Real Life Problems modelled on LP, Maxomization Models, Minimization Models, Transportation Algorithm, Assignment Algorithm
Simulation Modelling	Understand	Analyze	Simulation Model & their use in problem solving, Monte Carlo Simulation, Discrete Event Simulation, Heuristic Models for Simulation