Sample Questions for Lean Six Sigma Black Belt Examination

1. Which control chart will you use if it is a variable data with subgroup size 7?
   1. X-bar R chart
   2. X-bar S chart
   3. p chart
   4. np chart
   5. u chart

2. You want to check if the ASA of a process is high at night compared to its daily average, what will be your null hypothesis?
   1. ASA at night < ASA average
   2. ASA at night ≠ ASA average
   3. ASA at night > ASA average
   4. ASA at night ≥ ASA average
   5. ASA at night ≤ ASA average

3. Box Cox is available under _____ in Mini-tab
   1. Basic Statistics
   2. Non Para metrics
   3. Control Charts
   4. Multivariate
   5. EDA
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4. Which of the below is the most ideal Goal statement
   1. The goal is to reduce the errors
   2. The goal is to reduce the errors by 10%
   3. The goal is to reduce the errors by 10% by Sep’14
   4. The goal is to improve the errors by 10% by Sep’14 for Maruti Ltd.
   5. None of the above

5. The MSA system is acceptable if
   1. Percentage Tolerance= 6%, Percentage Contribution= 6%, # Distinct Categories= 20
   2. Percentage Tolerance= 6%, Percentage Contribution= 1%, # Distinct Categories= 9
   3. Percentage Tolerance= 7%, Percentage Contribution= 1%, # Distinct Categories= 11
   4. Percentage Tolerance= 9%, Percentage Contribution= 1%, # Distinct Categories= 11
   5. Percentage Tolerance= 7%, Percentage Contribution= 3%, # Distinct Categories= 15

6. The ideas are generated on the analogy and get transferred to the real problem?
   1. Assumption Busting
   2. Benchmarking
   3. Constrained Brain writing
   4. Anti Solution
   5. Analogy Technique
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7. This graphical test helps in identifying if the data is skewed or normally distributed.
   1. Box Plot
   2. Stem and Leaf Plot
   3. Pareto
   4. Histogram
   5. Bar Diagram

8. You need to improve the quality of the product made in the assembly line, you need to do
   1. Lean Six Sigma
   2. Six Sigma
   3. Seek the expert
   4. Kaizen
   5. None of the above

9. Failure is almost inevitable <1 in 2000 has an occurrence rating of
   1. 5
   2. 6
   3. 4
   4. 7
   5. 9
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10. A 6 sigma process will have
   1. 1.233 ppm
   2. 2.6210 ppm
   3. 3.308770 ppm
   4. 4.66810 ppm
   5. None of the above

11. A car has to pass through 8 assembly lines, daily 200 cars pass through the line and has 2 defects daily. Calculate DPMO
   1. 1.12500
   2. 1.125000
   3. 1.125
   4. 1.125
   5. None of the above

12. A car has to pass through 8 assembly lines, daily 200 cars pass through the line and has 2 defects daily. Calculate DPU
   1. 0.001
   2. 0.01
   3. 0.1
   4. 1.1
   5. 0.0001
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13. Which of the below is a special cause for delay in delivery of Pizza
   1. Delivery location distance
   2. Traffic
   3. Delivery process
   4. Bike breakdown
   5. None of the above

14. Which of these are not a Multivariate analysis?
   1. Factor analysis
   2. MANOVA
   3. PCA
   4. Cluster analysis
   5. Pareto

15. What does DOE stand for
   1. Design of Experiments
   2. Definition of Experiments
   3. Description of Experiments
   4. All of the above
   5. None of the above
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**Correct Answers:**

1. 1  
2. 5  
3. 3  
4. 4  
5. 3  
6. 5  
7. 2  
8. 2  
9. 4  
10. 5  
11. 3  
12. 2  
13. 4  
14. 5  
15. 1