

Six Sigma Certification Exam Questions with Answers

(Based on ASQ Black Belt BOK DMAIC sections)

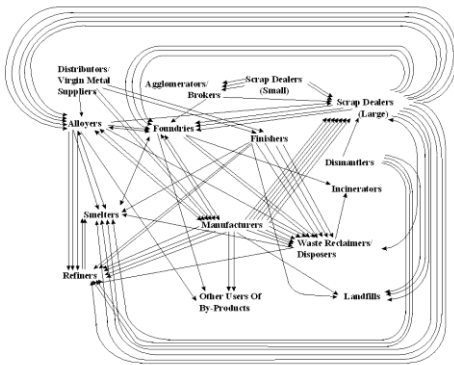
MEASURE

1) A lean six sigma team at a shoe factory is tasked to calculate an optimal number of line employees needed to produce soles given that the cycle time is 45 minutes and the takt time is 16 minutes. What is the number of people needed per cycle?

- a) 2.81
- b) 3**
- c) 2
- d) 1.81

The following formula need to be used to calculate the correct number of people per cycle: cycle time / takt time = $45/16=2.81$. Because it is not possible to have 2.81 people, round up to 3. Answer b) is correct.

2) If asked at a six sigma certification exam what type of chart this is, a black belt candidate will correctly choose which of the following?



- a) Spaghetti diagram**
- b) SIPOC
- c) Work in progress
- d) Ishikawa diagram

This is a spaghetti diagram. All other answers are incorrect.

3) Every LSS certification candidate who completed six sigma training at green belt level knows that temperature is measured on a _____ scale.

- a) Nominal
- b) Relative
- c) Ratio
- d) Interval

Interval scale is used to measure temperature as it does not have a meaningful zero.

4) Master black belt invited his six sigma team members to play poker at his summer house. She decided to test a green belt on his understanding of probability. She asked: with 52 card deck what is the probability of drawing a club or a spade? Choose a correct answer:

- a) 27%
- b) 25%
- c) 50%
- d) 13%

There are 13 cards for each suit. Therefore, 26 for clubs and spades. $26 / 50 = 0.5$ i.e. 50%.

5) A six sigma process improvement team has analyzed a manufacturing process. USL was 8.25 and LSL 8 while the standard deviation of the process was 0.065. What is the C_p of the process?

- a) 1.1
- b) 0.25
- c) 0.64
- d) 0.39

Formula for $C_p = (USL - LSL) / 6\sigma$, therefore $(8.25-8) / 6 \times 0.065 = 0.25 / 0.39 = 0.64$.