CCEA Sample Questions

Below are two sample questions with associated answers and solutions for sections A through C.

FOUNDATIONAL KNOWLEDGE SAMPLE QUESTION #1

[Cost Estimating Basics] (Work Breakdown Structure)

QUESTION: Which of the following is ***NOT*** a purpose of the Work Breakdown Structure?

a. To provide a lower level breakout of small tasks that are easy to identify, staff, schedule, and estimate

b. To identify the organizational relationships and assign work responsibilities
c. To reduce the possibility of overlap, duplication, or redundancy of tasks
d. To provide a basis of comparison for the actual work completed versus the estimate.
e. To furnish a convenient hierarchical structure for the accumulation of resources estimates

ANSWER: B

SOLUTION: All of the provided responses support the purpose of the WBS except response B.

REFERENCE: Stewart, Rodney. Cost Estimating: Second Edition. New York: John Wiley & Sons, Inc., 1991 , p 35.

FOUNDATIONAL KNOWLEDGE SAMPLE QUESTION #2

[Learning Curve]: (Unit Learning Curve)

QUESTION: The following example uses which type of LC theory to determine cost?

Unit Number (X)	Unit Cost (Y)
1	$100.00
2	80.00
4	64.00
8	51.20
16	40.96

a. Wright (Cum Ave)
b. Crawford (Unit)
c. Heuristic Lot Midpoint
d. Andelohr (Production Break)
e. Straight-line deductions

ANSWER: B
SOLUTION: By definition
REFERENCE: By definition

PRACTICAL APPLICATION SAMPLE QUESTION #1

[Data Collection and Normalization]: (Reasonableness of Data-Data Quality)

QUESTION: While collecting historical data to perform an estimate for a future aircraft, you discover that the ABC aircraft is similar to the proposed aircraft. You find that the ABC aircraft cost $2.2 billion (2007$) to develop, has an average recurring production cost of $90 million (2007$), weighs 30,000 lbs, and has a range of 2000 miles and maximum speed of 550 miles per hour. What major category of data is missing from this collection effort?

a. Cost
b. Technical
c. Programmatic
d. None of the above
e. All of the above

ANSWER: C

SOLUTION: Using the various terms addressed in Module 4 of CEBoK, programmatic is the best category for the missing data

REFERENCE: Module 4 of CEBoK

PRACTICAL APPLICATION SAMPLE QUESTION #2

[Basic Data Analysis Principles] : (Standard Deviation)

QUESTION: Given the following information and a sample mean of 1680, what is the sample standard deviation for monthly salary?

Employee	Monthly Salary
Abe	1500
Bob	1700
Cindy	2500
Doug	1450
Ellen	1250

a. 434.2
b. 485.5
c. 971.1
d. 1680
e. 0

ANSWER: B

SOLUTION:

Sample Data	*Sample Mean*	*Delta Data*	*Delta Squared*	
1500	*1680*	*180*	*32400*	
1700	*1680*	*-20*	*400*	
2500	*1680*	*-820*	*672400*	
1450	*1680*	*230*	*52900*	
1250	*1680*	*430*	*184900*	
Sample Mean =	*1680*		*943000*	*Differences Summed*
			235750	*Sum divided by n-1*
			485.5409355	*Standard Deviation of Sample*
			485.5409355	*Verified by Excel*

REFERENCE: (Submitted by Exam Committee)

ADVANCED ANALYSIS SAMPLE QUESTION #1

[Data Collection and Normalization]: (Data Collection Process)

QUESTION: Which of the following does not have the potential to impact the data collection process?

a. New technologies
b. Schedule
c. Cost Reduction Initiatives
d. Inflation
e. Development of a new CER

ANSWER: D
SOLUTION: Inflation doesn't impact the method of collection
REFERENCE: Module 4 of CEBoK

ADVANCED ANALYSIS SAMPLE QUESTION #2

[Economic Analysis]: (Real Interest Rate)

QUESTION: Suppose the nominal interest rate is 9.0%. The rate of inflation is 6.0%. The real interest rate is approximately:

a. 3.0%
b. 1.5%
c. -3.0%
d. 15.0%
e. Unknown

ANSWER: A
SOLUTION: The real interest rate is approximately the nominal rate of interest minus the rate of inflation.
REFERENCE: (Submitted by Committee)