**IE-352**

**Section 1, CRN: 5022/5030/5041**

**Section 2, CRN: 32997/32999/32998**

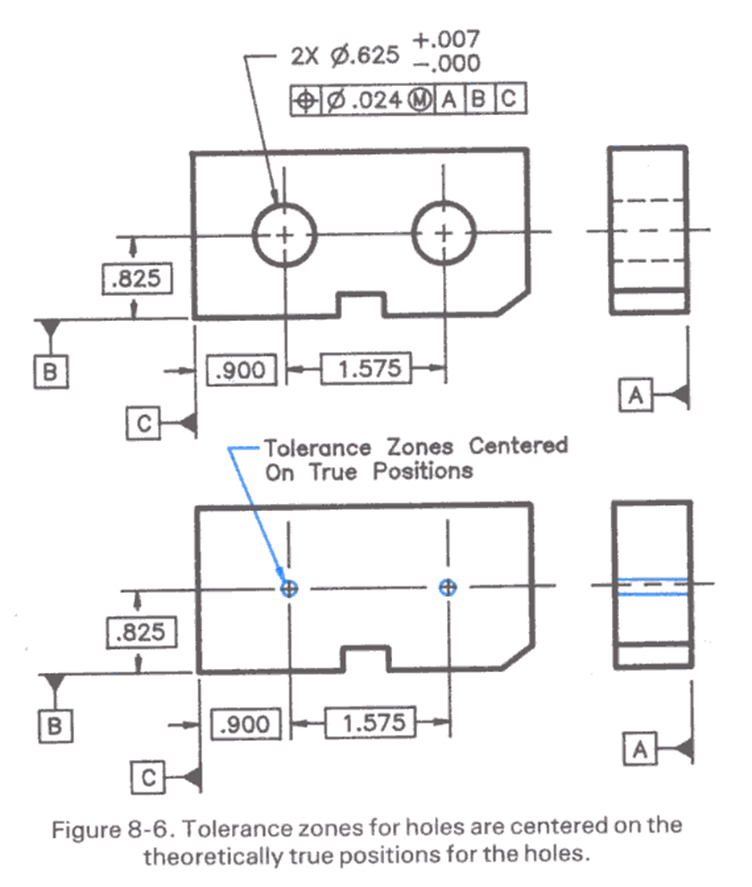
**Second Semester 1433-34 H (Spring-2013) – 4(4,1,1)   
MANUFACTURING PROCESSES – 2**

**Monday, Mar 18, 2013 (06/05/1434H)**

**Quiz 4 ANSWERS**

|  |  |  |
| --- | --- | --- |
| **Name:**  **Ahmed M. El-Sherbeeny, PhD** | **Student Number:**  **4** | **Section:**  **8:00 / 10:00** |

**Examine the drawing below and answer the following questions. [units: ]**



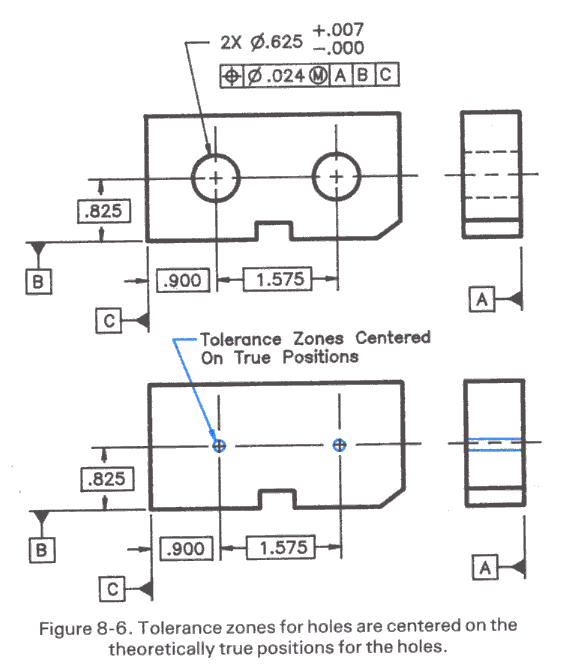
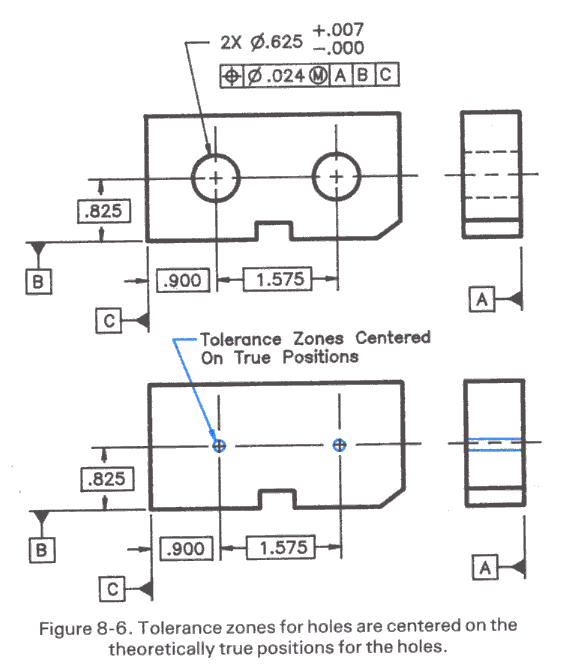
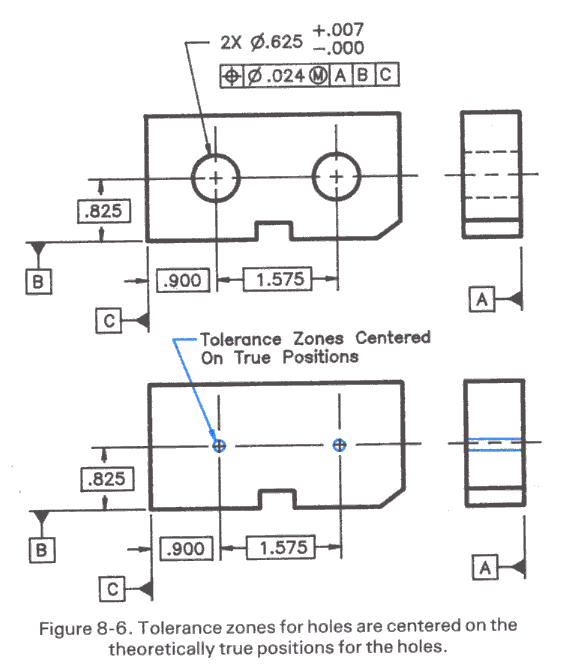
**MMC**

**LMC**

1. **What type of geometric tolerance is involved here (form, orientation, or location)?** [*1 Point*] **ANSWER:**

**location**

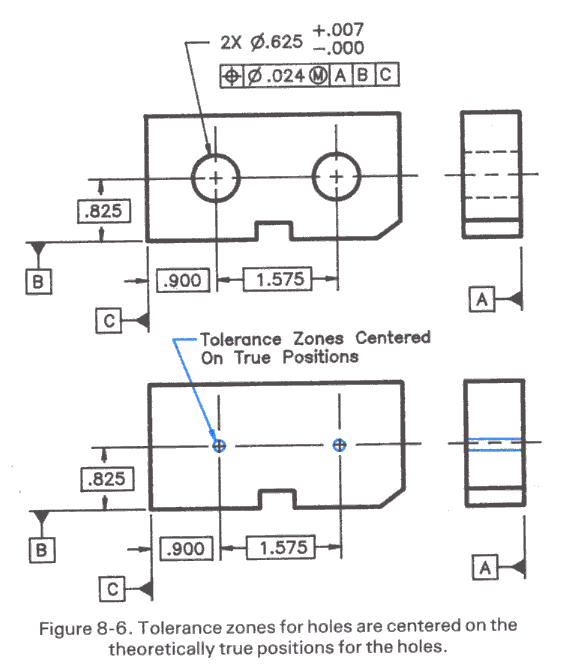
1. ***Describe* below each element of the *feature control frame*.** [*3 Points*]

* : geometric – location – **position** tolerance
* : allowable geometric tolerance is a  **cylindrical error zone**  measured around center point (or “centered on true positions”), and is taken at the  **of the hole**
* : the tolerance is determined with reference to datums  **(primary datum)**,  **(secondary datum)**, and  **(tertiary datum)**

1. **What is the basic size?** [*1 Point*] **ANSWER:**
2. **Is this a “basic hole” or “basic shaft” system (and why)?** [*1 Point*]

**ANSWER:**

**Basic hole system**

From the drawing  we can see that the

This must, thus, be a **basic hole system**

1. **What is the size of the *virtual shaft*?** [*2 Points*] **ANSWER:**
2. **What is the and given that an allowance of is required, and that the shaft has the *same* tolerance as the hole?** [*2 Points*]

**:**

**:**