CADD140B

**Assessment TESTS**

**SLO#1**

* 1- Given a basic size of **.50** inches and a fit of **RC8**, calculate the limits for both the hole and the shaft.
* 2- Given a basic size of **.50** inches and a fit of **RC8**, calculate the limits for both the hole and the shaft.
* 3- Find the limits, tolerance, type of fit, and type of system for a **F30 H11/c11** fit.
* 4- Find the limits, tolerance, type of fit, and type of system for a **F30 P7/h6** fit.
* 5- What is the **tolerance accumulation** for the distance between surface **A** and **B** for the following three dimensioning methods?



* 6- If the accuracy of the distance between surface A and B is important, which dimensioning method should be used?



* 7- Assuming that the diameter dimensions are correct, explain why this object is dimensioned incorrectly.



**SLO#2**

* 1- Identify the *Major,* *Minor & Pitch* diameters and the *Thread Depth*



* 2- Identify the different components of the following Unified National thread note.

**1/4 – 20 UNC – 2A – RH**

* 3- Write the thread note for a **#10 fine** thread.



* 4- Identify the different components of the following metric thread notes. **M10 x 1.5 – 4h6h – RH**
* 5- For a **F16** internal metric thread. Which has the finer thread?

Pitch = 2

Pitch = 1.5

* 6- Write the thread note for a **16** mm diameter **coarse** thread
* 7- What is the normal fit clearance hole diameter for the following nominal bolt sizes.

|  |  |
| --- | --- |
| **Nominal size** | **Clearance hole** |
| 1/4 |  |
| 3/4 |  |



* 8- A **5/16 - 18 UNC – Socket Head Cap Screw** needs to go through a piece of metal in order to screw into a plate below. The head of the screw should be flush with the surface.

Fill in the following table

* **9-** A **5/16 - 18 UNC – Socket Head Cap Screw**

Fill in the following table

|  |  |
| --- | --- |
| Max. Head diameter |  |
| Max. Height of head |  |
| Normal clearance hole dia. |  |
| C’Bore dia. |  |
| C’Bore depth |  |

* 10- An M8x1.25 Flat Countersunk Head Metric Cap Screw needs to go through a piece of metal in order to screw into a plate below. The clearance hole needs to be close and the head needs to be flush with the surface. What should the countersink diameter and clearance hole diameter be?

**SLO#3**

* 1- Fill in the section line is the largest area.



* 2- Draw an assembly drawing of the *Clamp* shown. Draw detailed drawings of the individual parts. Create a standard parts sheet.



* 3- Create an isometric pictorial of the following object.



* 4- Create a full scale isometric pictorial of the following object. The grid spacing is 10 mm.

