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Mech 211

GD&T 1

1. Rule #1 requires that a part have perfect from when at a) its Maximum material condition

2. On all geometric tolerances, b) RFS is assumed to apply unless specified otherwise.

3. Block Tolerancing controls the tolerance on any given dimensions by a) the number of significant digits.

4. A flatness tolerance results in a boundary defined by two d) Parallel planes

5. A form tolerance only need be applied to a surface if the needed amount of surface control is

a) greater than the amount of size tolerance.

6. A cylindricity tolerance specification defines the a) radial distance between two concentric cylinders that define the tolerance boundary.

7. A flat datum surface is used to establish a datum d) plane.

8. A b) primary datum feature reference is always the first one shown in a feature control frame

9. A feature control frame must include a minimum of a) one datum feature reference(s) for an orientation tolerance.

10. A parallelism tolerance applied to a flat surface also controls c) flatness.

11. Profile tolerance specifications may include d) all of the above datum feature references

12. A profile tolerance with a) no datum feature references only controls form.

True False

13. It is permissible to dimension a part so that its size or location can be determined in more than one way. b: FALSE

14. Regardless of the surface variations on a part, the planes forming the datum reference frame are always mutually perpendicular. a: TRUE

15. The datum references in a feature control frame must be shown in alphabetical order.

b: FALSE

Fill in the blank

16. Size dimensions control the size and SHAPE of the dimensioned feature.

17. Two sides of a part must be perfectly parallel when the feature is at its maximum material condition.

18. If a form tolerance is applied to the same surface as an orientation tolerance, the form tolerance must be smaller than the orientation tolerance.

19. Basic dimensions locate the relative position and tolerance of the reference geometry to a Datum.