

14 Questions for Metrology Paper.

1. What basic rule is required for obtaining the monochromatic beam of light ? what is interference & on what condition the interference of light waves depend?
2. What is engineer/s steel rule/ what are the desirable qualities & uses of steel rule?
3. Enlist the possible units of angle measurement & define any five of these with specific application.
4. Enlist all possible instruments which are used for angular measurement & define working principle with application of any three of the list given by you.
5. Differentiate b/w
 - a. Sine bar,
 - b. Sine table &
 - c. Sine center.

Explain with the help of a diagram the principle of a sine bar

6. How can taper holes & taper shafts be checked? Explain it with suitable diagram.
7. What is roundness & circularity? Explain with suitable sketches the different types of irregularities of a circular Part?
8. Define a comparator, what are the essential parts & Desirable features of comparator?
9. Enlist some types of mechanical comparators & describe with sketch the working principle of dial indicating comparator.
10. Describe with sketch the working principle of Level & Reed type mechanical comparators.
11. Discuss with sketch the working principal of sigma comparator.
12. What is surface texture? Enlist types of surface inspection by comparison method and explain any three of these in detail.
13. Describe possible relations for finding the numerical value of surface texture. Also discuss the working principle of Tomlinson Surface Finish Recorder.(not recommended)
14. Discuss in detail the optical measuring principles, also discuss the internal reflecting prism