



VISION

"To excel in the field of technology by creating technocrats with value-based professionalism."

MISSION

- *To provide technical expertise to fulfil the needs of the industry.*
- *To impact ethical values & professional responsibilities.*
- *To achieve excellence in academics..*

SY ME

Subject Name: EME (22342)

Assignment No 3

Course Outcome: – C305.3

Questions.

1. Explain With neat sketch hole basis system.
2. Differentiate between Tolerance and allowance.
3. Describe 'Taylor's principle' for design of limit gauges.
4. An angle of $57^{\circ}6'9''$ is to be developed using standard angle gauges set of $[1^{\circ}, 3^{\circ}, 9^{\circ}, 27^{\circ}, 41^{\circ}]$, $[1', 3', 9', 27']$, $[3'', 6'', 18'', 30'']$ and show arrangement using sketch.
5. State the advantages of interchangeability. (atleast two)
6. Differentiate between Hole basis system and Shaft basis system. (atleast four points)
7. A shaft of 25 ± 0.004 mm is to be checked by meance of GO and NOGO gauge. Design the dimensions of a gauge required.
8. Write the examples of use of following types of fits : (i) Push fit (ii) Press fit (iii) Running fit (iv) Wringing fit



9. An angle of $49^{\circ} 29' 18''$ is to be developed by using standard angle gauge set of 13 pieces. Calculate the gauges required and sketch the arrangement.
10. The angle of taper plug gauge is to be checked using sine centre and slip gauges. Sketch the set-up and describe the procedure.
11. Explain the meaning of 27H5F6
12. In a limit system, the following limits are specified to give a clearance fit between the shaft and hole. Shaft : $30 - 0.005 - 0.018$ mm ϕ Hole : $30 + 0.020 - 0.000$ mm ϕ Determine (i) Basic size (ii) Shaft and hole tolerance (iii) Minimum and maximum clearance.
13. Draw hole and shaft assembly and show (i) Limit (ii) Allowance (iii) Tolerance (iv) Deviation.
14. An angle of $117^{\circ} 8' 42''$ is to be developed using standard angle gauge set. Calculate the gauges required and show the arrangement.

Course coordinator: - Mrs. Priyanka Gurav

Date of Submission :- / /2022