

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

MISSION

- To provide technical expertise to fulfill the need to the industry.
- To impact ethical values & professional responsibilities.
- To achieve excellence in academics.

SYAE

Subject Name: MME (22040)

Assignment No: 1

Course Outcome: CO406.1

Questions.

- 1. Define the term Metrology and state the objectives of metrology.
- 2. State the precautions which should be take while using the instruments.
- 3. Explain operational error and observation error.
- 4. Explain in brief a) Line standard, b) end standard, c) Wavelength standard.
- 5. Draw a neat sketch of vernier caliper and micro meter screw gauge with finding its least count.
- 6. State the linear measuring instruments which are use in automobile engineering.
- 7. Define the tern calibration and gives its types.



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Subject Name: MME (22040)

Assignment No: 2

Course Outcome: CO406.2

Questions.

- 1. Define the term transducer and give the classification of transducers.
- 2. Explain construction and working of potentiometer.
- 3. Explain with neat sketch linear variable differential transformer (LVDT).
- 4. Explain capacitive transducer with neat sketch.
- 5. Explain with neat sketch construction and working of Bourdon pressure gauge.
- 6. Explain with neat sketch diaphragm gauge.



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Subject Name: MME (22040)

Assignment No: 3

Course Outcome: CO406.3

Questions.

- 1. Describe with neat sketch working principle of universal bevel protractor.
- 2. Explain the working of sine bar with neat sketch.
- 3. Describe the procedure to measure angles using the given angular measuring instruments.
- 4. Select suitable angular measurement instrument for the given situation with justification; take any example in automobile.
- 5. Explain angle dekkor or autocollimator with neat sketch.



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Subject Name: MME (22040)

Assignment No: 4

Course Outcome: CO406.4

Questions.

- 1. Define.
 - a) Major Diameter
 - b) Minor Diameter
 - c) Effective Diameter
 - d) Pitch
- 2. Explain with neat sketch working principle of screw thread micrometer.
- 3. Describe the construction and working of tool maker's microscope.
- 4. Explain the measurement of tooth thickness by constant chord method and base tangent method.
- 5. Explain the terms. a)Backlash b) Run out c) Composite d) Concentricity



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Subject Name: MME (22040)

Assignment No: 5

Course Outcome: CO406.5

Questions.

- 1. Define: a) Parallelism b) Straightness c) Squareness d) Coaxiallity
- 2. Describe the alignment checking procedure for the given automobile components assembly.
- 3. Describe relevant tests for the given automobile components.
- 4. Draw a neat sketch of any measuring instrument which is used to measure parallelism in automobile.



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Subject Name: MME (22040) Assignment No: 6 Course Outcome: CO406.6

Questions.

- 1. Define the term: a) Quality control b) Quality assurance c) Cost of Quality
- 2. Explain the concept of Quality circle.
- 3. Explain the Quality assurance techniques such as TQM, six-sigma, 7 QC tools, Pokayoke, etc.
- 4. Explain the concept of kaizen 5s and Kanban.
- 5. Describe ISO9001, ISO18000, and TS16949.



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