

R09

Code No: C3303, C0403, C5203

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech I Semester Supplementary Examinations September 2010

PRECISION ENGINEERING

**(COMMON TO ADVANCED MANUFACTURING SYSTEMS, CAD/CAM,
DESIGN FOR MANUFACTURING)**

Time: 3hours

Max.Marks:60

**Answer any five questions
All questions carry equal marks**

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- 1.a) Explain the displacement measurement system in detail.
b) Discuss the accuracy of numerical control systems. [12]
- 2.a) What are tolerance zone conversions? Explain.
b) Explain the logical approach to tolerancing. [12]
- 3.a) Discuss the computation of transactional and rotational accuracy.
b) Explain the grouped datum system with spigot and recess pair. [12]
- 4.a) What is meant by process capability? Explain.
b) Explain the feature tolerances. [12]
- 5.a) Explain the cumulative effect of tolerances.
b) Discuss the tolerance laws in detail. [12]
- 6.a) What is meant by process drawing? How do you prepare it? Explain
b) What are tolerance work sheets? Discuss. [12]
- 7.a) Explain the nano physical processing of atomic bit units.
b) Explain electro chemical atomic bit processing. [12]
- 8.a) What is in process measurement? Explain.
b) What is meant by an optical measuring system? Explain. [12]

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