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]

4a)   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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