Code No: D0410

R09

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech II - Semester Examinations, March/April 2011
COMPUTER AIDED PROCESS PLANNING
(CAD/CAM)

Time: 3hours   Max. Marks: 60

Answer any five questions
All questions carry equal marks
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1. a) Discuss the Structure of Automated process planning system and compare it with conventional process planning.
   b) With a neat diagram explain the working of generative CAPP system. Mention the advantages and limitations of it.   [6+6]

2. a) Explain the information flow in a retrieval – type CAPP system and compare it with generative CAPP system.
   b) Briefly describe various quantitative methods for optimal selection of a manufacturing sequence.   [6+6]

3. a) Describe the effect of various machining parameters on production rate**.**
   b) Mention the various methods for determine the machining parameters. Briefly explain the advantages of mathematical approach over conventional approach.   [6+6]

4. a) What is tolerance? Distinguish between Design tolerance and manufacturing tolerance.
   b) Explain the integration of design and manufacturing tolerances and mention the advantages of integrated approach over sequential approach.   [6+6]

5. a) Determine the optimal index positions for executing fixed sequence in NC tool path generation.
   b) Describe the functioning of MIPLAN system.   [6+6]

6. a) Explain various feature recognition approaches in CAPP with examples.
   b) Describe the role of Group Technology in Computer Aided Process Planning.
                                                                                    [6+6]

7. a) What are the various factors to be considered for the optimal selection of machining parameters ?
   b) Illustrate with an example the determination of manufacturing tolerance for a given component.   [6+6]

8. a) Discuss the role of machinability data system in Computerized Process Planning.
   b) Mention the various criteria to be considered for the selection of a CAPP system.
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