

Code No: R20D1509

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

R20

(Autonomous Institution – UGC, Govt. of India)

M.Tech I Year II Semester Regular/Supplementary Examinations, November 2022

Advanced Mechanics of Machinery

(MD)

Roll No										
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Time: 3 hours

Max. Marks: 70

Answer Any Five Questions
All Questions carries equal marks.

- 1 A What is inflection circle? What is the use of inflection circle? [4M]
B List out various methods to draw inflection circle for mechanisms and explain any two methods in detail. [10M]
- 2 A Explain the Hartmann's Construction procedure with the help of neat sketches. [7M]
B Explain the application of the Inflection circle to kinematic analysis. [7M]
- 3 A What do you mean by a coupler motion in kinematics and discuss its importance and applications. [7M]
B With the help of neat sketches, explain the relative motion of the output and input links. [7M]
- 4 A Discuss the importance of Carter –Hall circle. [7M]
B What are coupler curves? Explain how do you draw a coupler curve? [7M]
- 5 A What is a four-bar linkage system? Where are four-bar linkages used? Explain. [7M]
B Explain the procedure of guiding a body through Two distinct positions. [7M]
- 6 Explain the importance and applications of Burmester's curve [14M]
- 7 A What is the function of generation? What are the advantages of function generator? [6M]
B Explain Roberts's theorem and its significance. [8M]
- 8 A How many instantaneous centers are possible in a four-bar chain mechanism? Explain. [10M]
B What is four-bar mechanism system? [4M]

Code No: R20D1514

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

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M.Tech I Year II Semester Regular/Supplementary Examinations, November 2022

Computer Integrated Manufacturing

(MD)

Roll No									
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Time: 3 hours

Max. Marks: 70

Answer Any Five Questions
All Questions carries equal marks.

- 1 a Explain advantages of Computer Integrated Manufacturing? [7M]
b Explain the role of Group technology in CAD/CAM? [7M]
- 2 a Explain different types of Automation? [10M]
b Define Product Cycle? [4M]
- 3 a What is Computer Aided Process Planning? [4M]
b Explain the any two Approaches to Process planning? [10M]
- 4 Name the seven decisions and details that are usually included within the scope of the Process Planning? [14M]
- 5 Define Cellular Manufacturing? What is the objective of JIT production system? [14M]
- 6 a What is production control? [3M]
b Explain the difference between aggregate production plan and the master production schedule? [11M]
- 7 a Compare Contact and Non-Contact inspection methods? Explain any two methods of Non-Contact inspection? [10M]
b List out the advantages of Computer Aided testing? [4M]
- 8 What is Flexible manufacturing System? Explain the types of Flexible manufacturing systems? [14M]
