

B.Tech III Year II Semester (R13) Regular & Supplementary Examinations May/June 2017

CAD/CAM

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Define the terms CAD and Cam.
 - (b) What is meant by clipping?
 - (c) What is wire frame modeling?
 - (d) Briefly explain CSG model.
 - (e) What is meant by CNC system?
 - (f) Explain macro statement in APT programming.
 - (g) List the benefits of FMS.
 - (h) What is meant by computer aided quality control?
 - (i) Mention the benefits of CAPP.
 - (j) What is lean manufacturing?

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 Explain clearly the various CAD tools and CAM tools.

OR

- 3 Discuss clearly the functions of a graphics package.

UNIT – II

- 4 Explain clearly the wire frame modeling and solid modeling with neat sketch. Also mention the differences.

OR

- 5 Discuss analytical solid modeling with appropriate sketch.

UNIT – III

- 6 Explain the various types of NC motion control systems.

OR

- 7 Discuss the four types of statements used in APT programming.

UNIT – IV

- 8 Explain MICLASS system of classification used in GT.

OR

- 9 Explain the following:

- (a) Contact inspection methods.
- (b) Integration of CAQC with CAD and CAM.

UNIT – V

- 10 Explain retrieval type and generative type of computer aided process planning with a neat block diagram.

OR

- 11 Explain the following in brief:

- (a) MRP – I and MRP – II.
- (b) Sustainable manufacturing.