

[03 - 4203]

IV/IV B.E./B.Tech. DEGREE EXAMINATION

Second Semester

Mechanical Engineering

COMPUTER AIDED DESIGN

(Common for Mechanical, M.P. and I. Engineering,
Metallurgy, Marine and Naval Architecture
Engineering)

(Effective from the admitted batch of 1999-2000 and
after batches)

Time : Three hours

Maximum : 70 marks

First Question is compulsory.

Answer any FOUR out of the remaining questions.

Answer to question No. 1 must be at one place.

All questions carry equal marks.

Assume suitable data wherever necessary.

1. (a) List the CAD tools required to support design process.
- (b) Name the benefits of CAD.

(c) Why some design applications would be better with CAD than others.

(d) List the various interactive input devices.

(e) State surface modeling.

(f) What for NASTRON package is?

(g) Give the applications of artificial intelligence in design.

2. Compare the capabilities, advantages and disadvantages of the three types of displays.

3. (a) Discuss the features of design work station in detail.

(b) Give the applications of computers for design and Explain.

4. Discuss in detail the mesh generation with comments and imposition of boundary conditions.

5. (a) Discuss in brief the applications of artificial intelligence in CAD.

(b) Write a critical note on artificial intelligence.

6. Discuss in detail the features of ANSYS and NISA II packages.

7. (a) Make a note on display files for 3 D data.
(b) Write short notes on graphics standards and graphical user interface.
8. (a) Explain the analysis of cross sectional area.
(b) Discuss the kinematics of four — bar mechanism.

[2502/2/1/09]