5th Sem. / CAD/ CAM

Subject : Computer Aided Design Drafting

Time : 3 Hrs.   M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts.   (15x2=30)

Q.1 a)   Topology.

b)   UCS.

c)   Define CAD.

d)   Automation.

e)   Name any two input devices.

f)   Function of Trim command.

g)   What is raster scan.

h)   Define edge.

i)   Entity.

SECTION-C

Note: Long answer type questions. Attempt any three questions.   3x10=30

Q.3   Briefly describe about design procedure.

Q.4   Rotate and object defined by A(0,0), B(3.0), C(3,2) and D(0,2) by 60° by origin.

Q.5   A line AB is defined by its end points A(6,3) and B(9,6) express the line in matrix notation and perform the following transformations.

c)   Scale the original line by a factor of 3 in X-direction and 3 in Y-direction.

d)   Rotate the line about its origin.

Q.6   Compare the wire frame modeling, solid modeling and surface modelling.

Q.7   Explain the following commands.

e)   Array

f)   Grid

g)   Mirror

h)   Zoom

j)   Give full form of CRT.

k)   Function of digitizer.

l)   Name types of keyboards.

m)   What do you mean by DBMS.

n)   Name any two CAD data exchange formats.

o)   B-rep.

p)   List various CAD/CAM tools.

q)   What is direct view storage tube?

r)   Name any four microprocessors used in today's computer.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2   i)   Define graphics standards. Explain any one type used for 3D modeling.

ii)   List the reasons for implementing CAD.

iii)   What is surface modeling?

iv)   Define cad. What are the essentials of CAD?

v)   Scale the original line by a factor of 4 in x-direction and 2 in y-direction.

vi)   Differentiate between b-rep and c-rep.

vii)   Explain any one output devices with simple sketches.

viii)   Explain concatenation transformation.

ix)   What is enlarging scaling transformation give an example.

x)   Write the limitation of CAD.

xi)   Write short note on light pen.

xii)   Write advantages and disadvantages of automation.

xiii)   Write a short note on application of computer in design.

xiv)   What is difference between mirroring and rotation?

xv)   List out the merits and demerits of surface modeling.