Q.25 Discuss in brief how the drawing is transferred from any CAD soft to CAM & vice versa ?

Q.26 Write down the procedure of CAM.

Q.27 Explain the principle of flexibility .

Q.28 Discuss job flexibility and machine flexibility.

Q.29 Write a short note on Robot Programming languages.

Q.30 Write any five applications Robots.

Q.31 What are solid Primitives ? Explain any one .

Q.32 Write a simple finishing cut program in absolute mode for taper turning.

Q.33 Explain Contouring operation in milling.

Q.34 Write the advantages of FMS.

Q.35 Explain computer system in FMS.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions.   (2x10=20)

Q.36 Explain the following CAD commands with the help of diagrams .

a) Extrude   b) Chamfer

c) Polar array   d) Mirror

Q.37 Explain various types of robotics motions with neat sketches.

Q.38 Explain in detail the various steps involved in CAM operation.

6ᵗʰ Sem / Mech. Mecatronics, CNC
Subject:- CAD/CAM/CAD CAM & FMS

Time : 3Hrs.   M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory   (10x1=10)

Q.1 CAM/CAM is the relationship between

a) Science & Engineering

b) Manufacturing and marketing

c) Design and manufacturing

d) Design and marketing

Q.2 The axes of milling machines are

a) X and Z   b) X, Y and Z

c) X and Y   d) None of the above

Q.3 SW isometric view stand for _____.

a) Software   b) Softwall

c) South West   d) Surround west

Q.4 The axes of turning machines are .

a) Z and Y axes   b) X and Y axes

c) Z and X axes   d) X,Y and Z axes

Q.5 A_____ is the path the CNC cutting tool will take the very end of a cut.
a) Lead out   b) Lead in
c) Leader length   d) none of the above

Q.6 .To obtain parallel lines, concentric circles and parallel curves____ Command is used
a) Filet   b) Array
c) Mirror   d) Offset

Q.7 Several machine tools can be controlled by a central computer by ____
a) DNC   b) CNC
c) NC   d) CCNC

Q.8 Robot is derived from Czech name
a) Robota   b) Rabota
c) Rebota   d) Ribota

Q.9 Industrial robots are designed to carry which of the following coordinate systems ?
a) Polar coordinates system
b) Cartesian coordinate system
c) Cylindrical coordinate system
d) All of the above

Q.10 You apply a property called thickness to a standard Auto CAD object do you know have officially
a) Surface model   b) Solid model
c) Region   d) PLINE

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Explain Automation .

Q.12 The round corners of an object are made in autocad by _____Command.

Q.13 What is the use of array command in Auto CAD ?

Q.14 _____G code is used for programming in absolute mode coordinates.

Q.15 Explain FMS .

Q.16 Define dwall command in CNC .

Q.17 Give expanded from of AGV?

Q.18 The robot design with _____Coordinate system has three linear movements.

Q.19 DNC stands for____?

Q.20 Expand SCARA .

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Write any five benefits of using CAD/CAM ?

Q.22 Describe the construction of a solid using Extrude and Region feature of Auto CAD.

Q.23 What do you understand by the term Depth of Cut , Feed and Lead In .

Q.24 Name tool storage devices in CNC ecplain any one .