Q.29 Write advantages and applications of NC and CNC machines.
Q.30 Explain in detail the DBMS.
Q.31 Discuss the principles of adaptive Control.
Q.32 Explain any two output devices in CAD.
Q.33 Define various NC actuation systems.
Q.34 Differentiate between CNC and DNC machines.
Q.35 Explain incrementaland absolute coordinate systems.

SECTION-D

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

Q.36 Write short notes on :
a) Stepper motor
b) Servo motor

Q.37 Explain solid frame modelling with an examples. State its merits and demerits.

Q.38 Explain in brief the difference in conventional manufacturing line and automated manufacturing line.

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5th Sem / Branch : G.E./ Mechanical Egg.
(CAD/CAM Design. & Robotics)
Sub. : CAD/CAM

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Coordinate Measuring Machine is a..... Instrument.
a) Electrical b) Mechanical
c) Metrological d) Aesthetic

Q.2 ..... is usually employed in the open loop control system.
a) Servo motor b) Stepper motor
c) Induction motor d) Brush-less DC motor

Q.3 In a CNG program Block N10 G02 G91 x 52 Z 25.....G02 represents
a) Linear interpolation
b) Clockwise circular interpolation
c) Incremental command
d) Absolute command

Q.4 Which two disciplines are tied by a common database?
a) Documentation and geometric modeling
b) Drafting and documentation
c) CAD/CAM
d) None of the above

Q.5 A potentiometric device that contains sets of variable registers which feed signals that indicate the device position to the computer is known as

a) Joy stick b) Mouse
c) Track ball d) All of the above

Q.6 CAD is a

a) Software tool b) Hardware tool
c) Both A and B d) None of the both

Q.7 Identify the facts

a) CAM can work without CAD
b) CAD can work without CAM
c) Both A and B are correct
d) None

Q.8 The scaling transformation means:

a) Increasing the size b) Decreasing the size
c) Both A and B d) None of the above

Q.9 Which item best describes a CAM technology?

a) Geometric modeling
b) Drafting
c) Documentation
d) Numerical control

Q.10 Expand DBMS

a) Display board Multiple system
b) Data base Multiple system
c) Differential base Multiple system
d) Data base Management system

SECTION-B

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

Q.11 Name any two input devices.
Q.12 Define 2D scaling.
Q.13 L.E.D. stands for.....
Q.14 What is the use of sensor?
Q.15 Write programming code for Absolute coordinate system.
Q.16 Expand GUI.
Q.17 What is scaling.
Q.18 Define semiconductor.
Q.19 CRT is a ..... device.
Q.20 Expand WCS.

SECTION-C

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

Q.21 Explain concatenation transformation.
Q.22 Define transducer. Explain active and passive transducer.
Q.23 Define wireframe model in brief.
Q.24 Explain adaptive control system and its need in CNC system.
Q.25 Explain the need of geometric modeling.
Q.26 Define Scaling and its importance in CAD.
Q.27 Explain various types of co-ordinate system in CAD.
Q.28 Define open loop and closed loop system.