Q.18 Explain the special constructional characteristics of NC Machine tools. (CO4)

Q.19 Explain the work holding procedure for NC turning (CO4).

Q.20 What the different G codes used in NC Part Programming. (CO5)

Q.21 Discuss any four functions of computer numerical control (CNC). (CO5)

Q.22 Explain the uses of adaptive control . (CO4)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain the work holding and tool setting procedure for milling centres in details. (CO3)

Q.24 Write the names of different types of sweep in geometrical modeling and explain any two. (CO4)

Q.25 Write Short Notes on (CO5)

a) Tool Length and Radius Compensation

b) Constructive Solid Geometry (CSG)

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5th Sem. / Automation & Robotics

Subject : CAD and CAM

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 The use of computers to control the operation of the production process is known as (CO1)

a) CAD b) CAM

c) CAQ d) CAE

Q.2 Which is best suited for use with the paper of large size and for complex drawings in CAD. (CO1)

a) Dot Matrix Printer b) Laser Printer

c) Pen Potter d) Ink Jet Printer

Q.3 Which of the following is the default coordinate system . (CO1)

a) User Coordinate system

b) World Coordinate System

c) Screen Coordinate System

d) none of the above

Q.4 In a DNC system (CO4)

a) many machine tools can be controlled simultaneously

b) only a single machine tool is controlled

c) NC machine cannot be controlled

d) None of the control

Q.5 Numerical control is (CO4)

a) applies only to milling machines

b) a method for producing exact number of parts per hour

c) a method for controlling by means of set of instructions

d) None of the above

Q.6 In the CNC machine tool, the part program entered into the computer memory. (CO5)

a) can be used only once

b) can be used again and again

c) can be used again but it has to be modified every time

d) None of the above

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 The term WCS stands for_____. (CO1)

Q.8 The data stored on magnetic tapes and disks can be corrupted if these are brought into magnetic fields(T/F). (CO5)

Q.9 A software used to create digital models for 3D printing_____. (CO3)

Q.10 In CNC systems multiple microprocessors and programmable logic controllers work_____. (CO5)

Q.11 G-codes in CNC are also known as _____.(CO5)

Q.12 Which code will give rapid linear movement in CNC Programming_____. (CO4)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Explain the scope of CAD/CAM. (CO1)

Q.14 Explain the need of NC/CNC technology. (CO3)

Q.15 What are the various advantages of NC Technology over conventional manufacturing ? (CO3)

Q.16 Write the advantages of analytical curves. (CO2)

Q.17 Explain the different solid representation schemes. (CO2).