Q.31 Write short note on manual control panel with diagram.

Q.32 Write short note on computer aided scheduling.

Q.33 Explain FMS data files.

Q.34 What do you understand by manufacturing flexibility?

Q.35 Explain any one type of MCU with diagram.

SECTION-D

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

Q.36 Differentiaite between NC, CNC and DNC systems.

Q.37 Explain different types of manufacturing Line in CAM.

Q.38 Give the nomenclature of all NC machine axis with diagrams.

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Subject : Computer Aided Manufacturing

Time : 3 Hrs. **M.M. : 100**

SECTION-A

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

Q.1 Which one is a type of MCU?
a) Straigh MCU b) Stand alone MCU
c) Houses MCU d) Both C and D

Q.2 Which is not the advantage of CNC?
a) High initial cost b) Skilled CNC personnel
c) High maintenance d) All of the above

Q.3 Expand DNC
a) Directing numerical control
b) Directing number control
c) Direct numerical control
d) Direction number control

Q.4 Part family consist of
a) The raw material
b) The machinery
c) Same type of components
d) Both A and B

Q.5 Which one is not the function of CNC?
   a) Machine tool control
   b) Diagnostics
   c) In process compensation
   d) None of the above

Q.6 Which one is the NC motion control classification?
   a) Paraxial   b) PTP
   c) Contouring   d) All of the above

Q.7 Which one is not a transducer for NC?
   a) Encoder   b) LVDT
   c) Opto interrupter   d) MCU

Q.8 NC actuation systems use
   a) Servo motors   b) AC motors
   c) Table motor   d) Lathe chuck

Q.9 What is OPITZ in group technolgy
   a) Inventor   b) Classification
   c) Coding System d) None of the above

Q.10 CNC machines are used where ____ components are to be made
   a) High quality   b) High precision
   c) Low cost   d) All of the above

SECTION-B

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

Q.11 Name elements of FMS.

Q.12 Give two advantages of CNC.

Q.13 Expand CAM.

Q.14 Name types of adaptive control systems.

Q.15 Name types of MCU.

Q.16 Expand CAPP.

Q.17 Define actuators.

Q.18 Group Technology groups the components based on ____ or ____.

Q.19 The ____ axis decide the tool movement.

Q.20 Robots are part of FMS systems. (True/False)

SECTION-C

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

Q.21 Write short note on transducers.

Q.22 Explain group technology technique.

Q.23 Give disadvantages of NC machines.

Q.24 Explain the concept of sequencing in FMS.

Q.25 What are the main modules of CAM?

Q.26 Explain integrated Process Planning systems.

Q.27 Explain how adaptive Control works for adjusting proper cutting speed?

Q.28 What are the design aspects of flexible manufacturing?

Q.29 Explain the role of process planning in Computer integrated manufacturing.

Q.30 Explain part program to command signal.