Q.27 Explain common fault and remedy of CNC Machine related to electrical components

Q.28 Define Automation? List various advantages

Q.29 Write a short note on sensor used in CNC machines

Q.30 Explain various emerging trends in Automation

Q.31 Explain concept of FMS

Q.32 Explain Group Technology with example

Q.33 Explain basic tool used for CNC Machines

Q.34 Explain real time fault diagnostic tools used in CNC

Q.35 Explain various tool materials used for CNC Machining

SECTION-D

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

Q.36 Explain different pallet system and ATC system used in CNC

Q.37 Explain common fault and remedy of CNC Machine related to mechanical Components of NC/CNC machines.

Q.38 Write a short note on any two:

a) Part family

b) Sensors used in CNC

c) Swarf removal

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5th Sem / CNC

Subject:- Maintenance of CNC Machines

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Command G04 means

a) Linear Interpolation

b) Dwell

c) Circular Interpolation

d) None

Q.2 M codes is_____

a) Speed codes b) Preparatory codes

c) Manipulation code d) Miscellaneous codes

Q.3 Which type of feedback device used in CNC

a) Position feedback b) Velocity feedback

c) Both a and b d) none of above

Q.4 DNC stands for:

a) Direct Network control

b) Direct Numeric control

c) Direct Nested control

d) all of the above

Q.5 In a DNC System

a) Many machine tool can be controlled simultaneously
b) Only single machine tool can be controlled
c) NC machine cannot be controlled
d) None of the above

Q.6 Which of the following is not the advantage of CNC machine:

a) Many machine tool can be controlled simultaneously
b) Only single machine tool can be controlled
c) NC machine cannot be controlled
d) None of the above

Q.7 Which code is used for linear interpolation function

a) G01 b) G03
c) G02 d) G04

Q.8 CNC stands for:

a) Computer Network control
b) Computer Numeric control
c) Computer Nested control
d) all of the above

Q.9 Point to point systems are used for_____

a) drilling b) parting
c) grooving d) facing

Q.10 The CNC Control systems which has no feedback are

a) uncontrolled system b) controlled system
c) closed loop d) open loop

SECTION-B

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

Q.11 Name any two applications of CNC

Q.12 What is the function of M01 Code

Q.13 Define CIM

Q.14 Expand LVDT

Q.15 What is the function of sensors used in CNC

Q.16 The function of slideways in CNC is to_____

Q.17 The tool coatings improve the performance of tool

a) True b) False

Q.18 Ceramic tools can be used for_____cutting speeds

Q.19 What is the use of G04 Code in part programs

Q.20 M02 Code is used for_____

SECTION-C

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

Q.21 Explain Opto-interupters

Q.22 Explain Slideways and list some uses of it

Q.23 Write a short note on CAD and its advantages

Q.24 Explain closed loop control systems.

Q.25 Define Transducer? Explain its types in brief

Q.26 Explain encoders and decoders in brief