MCQ(CIMS)

This set of Manufacturing Engineering Multiple Choice Questions & Answers (MCQs) focuses on “Computer Integrated Manufacturing”.

1. During the execution of a CNC part program block NO20 GO2 X45.0 Y25.0 R5.0 the type of tool motion will be
a) circular Interpolation – clockwise
b) circular Interpolation – counterclockwise
c) linear Interpolation
d) rapid feed

2. In an NC machining operation, the tool has to be moved from point (5, 4) to point (7, 2) along a circular path with centre at (5, 2). Before starting the operation, the tool is at (5, 4). The correct G and N codes for this motion are
a) N010GO3X7.0Y2.0I5.0J2.0
b) N010GO2X7.0Y2.0I5.0J2.0
c) N010GO1X7.0Y2.0I5.0J2.0
d) N010GOOX7.0Y2.0I5.0J2.0

3. The tool of an NC machine has to move along a circular arc from (5, 5) to (10, 10) while performing an operation. The centre of the arc is at (10, 5). Which one of the following NC tool path command performs the above mentioned operation?
a) N010 GO2 X10 Y10 X5 Y5 R5
b) N010 GO3 X10 Y10 X5 Y5 R5
c) N010 GO1 X5 Y5 X10 Y10 R5
d) N010 GO2 X5 Y5 X10 Y10 R5

4. NC contouring is an example of
a) continuous path positioning
b) point-to-point positioning
c) absolute positioning
d) incremental positioning

5. Match the following:

NC code	Definition
P. M05	1. Absolute coordinate system
Q. G01	2. Dwell
R. G04	3. Spindle stop
S. G09	4. Linear interpolation

a) P-2, Q-3, R-4, S-1
b) P-3, Q-4, R-1, S-2
c) P-3, Q-4, R-2, S-1
d) P-4, Q-3, R-2, S-1

6. In a CNC program block, N002 GO2 G91 X40 Z40……,GO2 and G91 refer to
a) circular interpolation in counterclockwise direction and incremental dimension
b) circular interpolation in counterclockwise direction and absolute dimension
c) circular interpolation in clockwise direction and incremental dimension
d) circular interpolation in clockwise direction and absolute dimension

7. Numerical control _____
a) applies only to milling machines
b) is a method for producing exact number of parts per hour
c) is a method for controlling by means of set of instructions
d) none of the mentioned

8. Computer will perform the data processing functions in
a) NC
b) CNC
c) DNC
d) None of the mentioned

9. Control loop unit of M.C.U is always
a) a hardware unit
b) a software unit
c) a control unit
d) none of the mentioned

10. The repeatability of NC machine depends on
a) control loop errors
b) mechanical errors
c) electrical errors
d) none of the mentioned

11. Rotation about Z-axis is called
a) a-axis
b) b-axis
c) c-axis
d) none of the mentioned

12. Rotation of spindle is designated by one of the following axis:
a) a-axis
b) b-axis
c) c-axis
d) none of the mentioned

13. The linking of computer with a communication system is called
a) networking
b) pairing
c) interlocking
d) assembling

14. The process of putting data into a storage location is called
a) reading
b) writing
c) controlling
d) hand shaking

15. The process of copying data from a memory location is called
a) reading
b) writing
c) controlling
d) hand shaking

16. Designs are periodically modified to
a) improve product performance
b) strive for zero-based rejection and waste
c) make products easier and faster to manufacture
d) all of the mentioned

17. The expected qualities of a product are
a) it satisfies the needs and expectations of the customer
b) it has a pleasing appearance and handles well
c) it has high reliability and functions safely over its intended life
d) all of the mentioned

18. The life cycle of a product includes
a) extraction of natural resources
b) processing of raw materials
c) manufacturing of products
d) all of the mentioned

19. Life-cycle engineering is also called
a) green design
b) expensive design
c) easy design
d) none of the mentioned
20. Sustainable manufacturing is required for
a) conserving resources
b) proper maintenance
c) reuse
d) all of the mentioned

21. The mechanical properties of good product material are
a) strength
b) toughness
c) ductility
d) all of the mentioned

22. The physical properties of good product material are
a) density
b) melting point

c) specific heat
d) all of the mentioned

23. Considerations of costing systems are
a) life cycle costs
b) machine usage
c) cost of purchasing machinery
d) all of the mentioned