

The objective of these questions is to test general knowledge relating to a CNC mill and lathe tool functions.

| # | Question   | Answer                                |
|---|--|---------------------------------------|
| 1 | Specify at least three conditions that must be satisfied for an automatic tool change function on vertical CNC machining centers |                                       |
| 2 | What is the normal function to program an automatic tool change?   |                                       |
| 3 | On CNC machines with a 24-tool magazine, can 25 normal tools be used?<br><br>Explain the answer                                  |                                       |
| 4 | Name two types of tool change memory for CNC machining centers   | 1<br><br><hr/> 2                      |
| 5 | Explain the meaning of the following three blocks:<br><br>N27 T04<br>N28 M06<br>N29 T05<br>N30 ...                               | N27 ...<br><br>N28 ...<br><br>N29 ... |
| 6 | What does the abbreviation ATC stand for?  |                                       |

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|----|--|--|
| 7  | A lathe tool is programmed as T0313<br><br>Explain its meaning   |  |
| 8  | What does the term ' <i>dummy tool</i> ' mean?   |  |
| 9  | If the diameter of a tool is larger than manufacturer's maximum diameter specification, but still within the allowed range, what setup conditions will be required?  |  |
| 10 | Describe a GEOMETRY offset   |  |
| 11 | Describe a WEAR offset   |  |
| 12 | Describe the difference between the following program blocks, used at the <i>beginning</i> of a new tool:<br><br><div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <p>A/        T08 M06</p> <p>B/        M06 T08</p> <p>C/        T08<br/>            M06</p> <p>D/        M06<br/>            T08</p> </div> <div style="width: 45%;"> <p>A/</p> <hr/> <p>B/</p> <hr/> <p>C/</p> <hr/> <p>D/</p> <hr/> </div> </div> |  |