

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute)

Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

M.TECH

FIRST YEAR (SEMESTER-II) THEORY EXAMINATION (2020-2021)

(Objective Type)

Subject Code: AMTME0201 Subject: <u>Digital Manufacturing and Automation</u> Max. Mks. : 40 Time : 70 Minutes

General Instructions:

All questions are compulsory.

Question No- 1 to 5 are objective type question carrying 2 marks each. Question No- 6 to 20 are also objective type/Glossary based question carrying 2 marks each.

| Q.No | Question Content | Question Image | Category | Sub Category | Marks | Options Randomization | Туре | Difficulty | Correct | Option1 | Option2 | Option3 | Option4 |
|------|--|-------------------|----------------------------|----------------------------|-------|--------------------------|------------------|------------|------------------------|------------------------|------------------|---------------------|----------------------------|
| 1 | The most common type of feed drives used on CNC machines is the: | | Single Choice Questions | Single Choice Questions | 2 | | Single Choice | Smart | Electric servo motor | Electric servo motor | Hydraulic drive. | Manual crank | Manual/hydraulic system |
| 2 | The depth that the tool is plunged into the surface is called as | | Single Choice Questions | Single Choice Questions | 2 | | Single Choice | Brilliant | depth of cut | feed | depth of cut | depth of tool | working depth |
| 3 | The coolant system of a CNC machine would most commonly be apump | | Single Choice Questions | Single Choice Questions | 2 | | Single Choice | Brilliant | Medium pressure | Low pressure | Medium pressure | High pressure | Gravity |
| 4 | For a robot unit to be considered a functional industrial robot, typically, how many degrees of freedom would the robot have | | Single Choice Questions | Single Choice Questions | 2 | | Single Choice | Brilliant | 6 | 4 | 5 | 6 | 7 |
| 5 | Group technology is often related to which one of the following | | Single Choice Questions | Single Choice Questions | 2 | | Single Choice | Smart | Cellular manufacturing | Cellular manufacturing | Product layout | Combination layouts | Self-directed teams |
| 6 | """""""""""""""""""""""""""""""""""""" | | Glossary I | Glossary I | 2 | | Single Choice | Brilliant | fixed-position | continuous | fixed-position | assembly | |
| 7 | flexibility. | | Glossary I | Glossary I | 2 | | Single Choice | Brilliant | continuous | continuous | fixed-position | assembly | |
| 8 | most closely associated with division of labor. | | Glossary I | Glossary I | 2 | | Single Choice | Brilliant | assembly | continuous | fixed-position | assembly | |
| 9 | is a serial Robot. | | Glossary II | Glossary II | 2 | | Single Choice | Brilliant | Industrial Robot | Industrial Robot | KUKA | ASIMO | |
| 10 | is a humanoid robot | | Glossary II | Glossary II | 2 | | Single Choice | Brilliant | ASIMO | Industrial Robot | KUKA | ASIMO | |
| 11 | deals with manufacturing and installation of robot. | | Glossary II | Glossary II | 2 | | Single Choice | Brilliant | KUKA | Industrial Robot | KUKA | ASIMO | |
| 12 | Using (an) can destroy the effectiveness and efficiency of a cut when machining ferrous alloys with coated-carbide cutters. | | Glossary III | Glossary III | 2 | | Single Choice | Brilliant | Flood coolant | Increase | Actuators | Flood coolant | |
| | If a percentage of cobalt in Tungsten carbide tool increases, then toughness of tool will | | Glossary III | Glossary III | 2 | | Single Choice | Brilliant | Increase | Increase | Actuators | Flood coolant | |
| 14 | Drives are also known as | | Glossary III | Glossary III | 2 | | Single Choice | Brilliant | Actuators | Increase | Actuators | Flood coolant | |
| 15 | mode switch position allows programs to run | | Glossary IV | Glossary IV | 2 | | Single Choice | Brilliant | Auto | Edit | Auto | MDI | |
| 16 | mode switch position allows programs to be modified. | | Glossary IV | Glossary IV | 2 | | Single Choice | Brilliant | Edit | Edit | Auto | MDI | |

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|------|--|-------------------|-------------|--------------|-------|--------------------------|------------------|------------|------------------------------------|------------------------------------|---------|---------|---------|
| 17 | mode switch position lets you move the machine axes manually. | | Glossary IV | Glossary IV | 2 | | Single Choice | Brilliant | MDI | Edit | Auto | MDI | |
| 18 | The development of first NC machine tool project was awarded to | | Glossary V | Glossary V | 2 | | Single Choice | Brilliant | MIT | Improved strength of thecomponents | FALSE | MIT | |
| 19 | The running cost of CNC is higher than conventional machine | | Glossary V | Glossary V | 2 | | Single Choice | Brilliant | FALSE | Improved strength of thecomponents | FALSE | MIT | |
| 20 | is not the advantage of CNC machines. | | Glossary V | Glossary V | 2 | | Single Choice | Smart | Improved strength of thecomponents | Improved strength of thecomponents | FALSE | MIT | |