

National Testing Agency

Question Paper Name: 5304 DIY Manufacturing Technology 30th June 2019 Shift 2
Subject Name: DIY Manufacturing Technology
Creation Date: 2019-06-30 18:16:50
Duration: 180
Total Marks: 100
Display Marks: Yes

DIY Manufacturing Technology

Group Number : 1
Group Id : 489994220
Group Maximum Duration : 0
Group Minimum Duration : 120
Revisit allowed for view? : No
Revisit allowed for edit? : No
Break time: 0
Group Marks: 100

DIY Manufacturing Technology

Section Id : 489994276
Section Number : 1
Section type : Online
Mandatory or Optional: Mandatory
Number of Questions: 100
Number of Questions to be attempted: 100
Section Marks: 100
Display Number Panel: Yes
Group All Questions: No

Sub-Section Number: 1
Sub-Section Id: 489994300
Question Shuffling Allowed : Yes

Question Number : 1 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What's the term used to describe 3-D printing when it's used to create models for testing a product's design?

- A. Rapid prototyping (RP)
- B. Rapid prototype modeling (RPM)
- C. Fused deposition modeling (FDM)
- D. CAD

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 2 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following 3-D printing approaches involves melting the material, then allowing it to cool and solidify to form each new layer?

- A. Solidifying
- B. Sintering
- C. Binding
- D. Melting

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 3 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Before you print out something on a 3-D printer, which file format should you convert your file to?

- A. STL
- B. SLT
- C. SLS
- D. STL and Obj

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 4 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which technology makes it possible to obtain full-color parts?

- A.FDM
- B.SLA
- C. SLS
- D. Powder Binding

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 5 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following statements is/are correct about 3-D Printing?

1. 3D printing is based on methods of applying a 2D image on a 3D surface

2. The 3D printer can print with anything that can be dispensed from a syringe as liquid or paste.

- A. Only 1
- B. Only 2
- C. Both
- D. None

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 6 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Low-cost 3D printing got a kickstart from an open source project intending to produce a self-replicating device. What is its name?

- A. DubStep
- B. RepRap
- C. ClapTrap
- D. None of the above

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 7 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the purpose of slicing software?

- A. The slicer breaks down the model layer by layer
- B. 3D printing slicing software controls every aspect of your 3D print
- C. It translates 3D models into instructions your printer understands
- D. All the Above

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 8 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which Printing method is suitable for metal printing?

- A. SLS
- B. Binderjet
- C. FDM
- D. SLA

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 9 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is post-processing?

- A. Smoothing and finishing the 3d printed part
- B. Slicing the cad Model
- C. Support structure removal and cleaning
- D. A and B

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 10 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the one of the following statements is correct about Speed?

- A. changing 3D printer layer height settings is to increase print speed.
- B. Layer height is the exact height of each layer of plastic extruded, cured, or sintered by a 3D printer.
- C. 3D printer layer height is typically measured in microns, one micron being equivalent to 0.001 mm.
- D. All The Above.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 11 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which affects the size of the line/extrusion width of the print?

- A. Filament Type
- B. Layer Height
- C. Resolution
- D. Nozzle size

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 12 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Print speed affects quality mostly due to

- A. vibrations from the printer frame/chassis as well as heavy X gantry / moving heated beds.
- B. layer height
- C. Infill
- D. Filament Type

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 13 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The thickness of the layer height determines

- A. Resolution
- B. Smooth Surface
- C. Quality
- D. All the Above

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 14 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

PLA means

- A. Poly lactic Acid
- B. Polyester
- C. Polymer
- D. None of the above

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 15 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

ABS means

- A. Acrylonitrile Butadiene Styrene
- B. Acrylonitrile Butadiene silicate
- C. Acrylonitrile Buta Styrene
- D. None of the above

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 16 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many motors can connect with Ramps 1.4 Board?

- A. 6 Stepper motos and 6 servo motors
- B. 5Stepper motos and 5servo motors
- C. 4Stepper motos and 4 servo motors
- D. 4Stepper motos and servo motors

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 17 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What kind of controller system is found in CNC machine tools?

- A. Hardwired logic
- B. Microprocessor based
- C. Programmable Logic Controller (PLC).
- D. Personal Computer (PC).

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 18 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following is standard coordinate system for NC/CNC machine tool

- A. Cartesian
- B. Cylindrical
- C. Polar
- D. All of these.

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 19 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The basic axes of a CNC turning centre are

- A. X and Y
- B. Y and Z
- C. X and Z
- D. X and A.

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 20 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Total number of basic axes in a vertical machining centre (V MC) is

- A. 2
- B. 3
- C. 4
- D. 5

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 21 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Total number of basic axes in a horizontal boring machine is

- A. 2
- B. 3
- C. 4
- D. 5

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 22 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The axis perpendicular to work holding surface of a CNC shaper is

- A. X
- B. Y
- C. Z
- D. W

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 23 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

On a 4 axes horizontal boring machine, the table axis that is parallel to the spindle axis is

- A. X
- B. Y
- C. Z
- D. W

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 24 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The rotary table installed on a vertical machining centre to facilitate boring operation is designated as

- A. A axis
- B. B axis
- C. C axis
- D. W axis

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 25 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The M03 command on a turning centre results into spindle rotation

- A. Clockwise looking from tailstock side
- B. Counterclockwise looking from headstock side
- C. Counterclockwise looking from tailstock side
- D. None of the above.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 26 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

On a horizontal machining centre, + Z motion of the tool results into

- A. Table moving towards column
- B. Table moving away from column
- C. Spindle moving towards table
- D. Spindle moving away from table.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 27 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which type of control is found on a vertical machining centre?

- A. 2P L control
- B. 2C L control
- C. 3C control
- D. 2C 2L control.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 28 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The controller of a horizontal boring machine has

- A. 2P L control
- B. 2C L control
- C. 3C control
- D. 2C 2L control.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 29 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

When the coordinates in a part program arc specified relative to the program zero, it is called:

- A. Incremental mode
- B. Absolute mode
- C. Rapid mode
- D. Canned cycle mode.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 30 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In CNC machine axis motors, the _____ is constant.

- A. Speed
- B. Current
- C. Power
- D. Torque.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 31 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The _____ is constant in CNC machine tool spindle motors.

- A. Speed
- B. Current
- C. Power
- D. Torque

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 32 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In CNC machine tools, the conversion of rotary motion of the motor to linear motion or the axis is done by

- A. Nut and screw
- B. Timing belt and pulley
- C. Recirculating ballscrew
- D. Rack and pinion.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 33 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one is the best slide way for the medium range CNC machine tools?

- A. Turcite coated
- B. LM guideways
- C. Conventional
- D. Needle roller type

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 34 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which function key is ineffective during thread cutting on a turning centre?

- A. Spindle speed override
- B. Feed rate override
- C. Both a and b
- D. None of these

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 35 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What would be the most suitable feedback device for tool position for automatic tool turret on a turning centre?

- A. Incremental rotary encoder
- B. Absolute rotary encoder
- C. Tacho-generator
- D. Linear encoder.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 36 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following terms represents the ability of the positioning system return to previously defined location?

- A. BLU
- B. Accuracy
- C. Repeatability
- D. Precision

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 37 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Backlash is measured by using

- A. Linear encoder
- B. Laser Interferometer
- C. Recirculating ballscrew
- D. Rotary encoder

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 38 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

At the time of retrofitting of a centre lathe, what is required to be changed?

- A. Leadscrew
- B. Bed
- C. Head stock
- D. Tail stock

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 39 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following is the fast-operating tool turret?

- A. Hydraulic
- B. Stepper motor
- C. Electro mechanical
- D. Pneumatic.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 40 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Percentage of slip in the timing belt is

- A. 10%
- B. 50%
- C. 0%
- D. Varies

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 41 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The type of tool motion observed during execution of the CNC part program

block N020 G02 X45Y25R5

- A. Circular interpolation-clockwise
- B. Linear interpolation
- C. Circular interpolation-counterclockwise
- D. Rapid positioning

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 42 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following operations need NC machine tools with continuous path control?

Arc Welding (A W), Milling (M), Drilling (D), Punching in Sheet Metal (P), Laser Cutting of Sheet Metal (LC), Spot Welding (SW)

- A. AW, LC and M
- B. AW, D, LC and M
- C. D, LC, P and SW
- D. D, LC, and SW

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 43 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Preparatory commands are programmed using

- A. G words
- B. M words
- C. X words
- D. T words

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 44 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which word is used to specify tool offsets on a turning centre?

- A. H word
- B. T word
- C. G word
- D. M word

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 45 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Spindle speed for a turning centre can be specified in:

- A. Only RPM
- B. Only surface m/min. (SMM)
- C. Both RPM and SMM
- D. mm per revolution

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 46 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Constant surface speed facility is useful during

- A. Thread cutting
- B. Taper turning
- C. Contour turning
- D. both b and c

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 47 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following NC blocks is correct?

- A. N10 G01 M03 X89.78 Z-12.54R23.15
- B. N10 G02 M06 Z-15.66 S800
- C. N10 G00 X100.55 Z87.35 F0.2 S1100
- D. N10 G02 M03 Z-22.76 F0.2 S 1000

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 48 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The correct syntax of an NC block for taper turning operation is

- A. N_G01 X_F_
- B. N_G01Z_F_
- C. N_G01 X_Z_F_
- D. N_G01 M_X_Y_

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 49 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

For right hand thread cutting on a turning centre, the spindle and tool motions are

- A. Spindle clockwise, tool right to left
- B. Spindle clockwise, tool left to right
- C. Spindle counter clockwise, tool right to left
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 50 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a DNC (Distributed Numerical Control) system

- A. NC machine tools cannot be controlled
- B. Only a single machine tool can be controlled
- C. More than one machine tools can be controlled
- D. Many machine tools can be controlled simultaneously

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 51 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The codes which do not directly help in machining, but are required for proper functioning of an NC/CNC machine tool are called

- A. Preparatory codes
- B. Miscellaneous codes
- C. T word
- D. Sword

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 52 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The G code used to represent a tapping cycle on a machining centre is

- A. G81
- B. G82
- C. G83
- D. G84

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 53 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The G00 command moves the tool at

- A. Rapid traverse while machining
- B. Feed rate while machining
- C. Rapid traverse without machining
- D. Feed rate without machining

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 54 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

G04 performs

- A. Circular interpolation CW
- B. Circular interpolation CCW
- C. Dwell
- D. Reference point return

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 55 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

G70 cycle in turning centre is used for

- A. Rough turning
- B. Finish turning
- C. Thread cutting
- D. Tapping

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 56 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

G83 canned cycle on a machining centre is used for

- A. Deep hole drilling
- B. Spot drilling
- C. Boring
- D. Tapping

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 57 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the difference between full-step and half-step?

- A. In full-step two phases are on and in half-step only one phase is on.
- B. More resonance is evident in half-step
- C. More power required for full-step
- D. Half-step offers better resolution

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 58 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The rotor of a stepper motor has no

- A. Windings
- B. Commutator
- C. Brushes
- D. All of the mentioned

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 59 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The rotational speed of a given stepper motor is determined solely by the

- A. Shaft load
- B. Step pulse frequency
- C. Polarity of stator current
- D. Magnitude of stator current.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 60 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A stepper motor may be considered as a _____ converter.

- A. DC to DC
- B. AC to AC
- C. DC to AC
- D. Digital-to-analog

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 61 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If an application using a stepper motor required feedback, which device would be needed to accomplish this?

- A. Counter
- B. Encoder
- C. Linear Guide
- D. Commutator

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 62 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A stepping motor is a device.

- A. mechanical
- B. electrica
- C. analog
- D. incremental

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 63 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Header file syntax for Stepper motor is

- A. #include <stepper.io>
- B. #include <wire.io>
- C. #include <stepper.h>
- D. #include <wire.h>

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 64 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Bipolar and Unipolar motors have ____ & ____ wires respectively.

- A. 4 & 8
- B. 6 & 6
- C. 4 & 6
- D. 8 & 8

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 65 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How to control direction of two motors connected in a circuit?

- A. PWM
- B. H-Bridge
- C. Brushes
- D. Contractors

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 66 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Syntax to tell stepper to turn one or more steps?

- A. step (int step.)
- B. set step (int rpm)
- C. stepper (int steps)
- D. stepper (int rpm)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 67 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If each turn of the stepper rotates by an angle of 1.8° , the number of steps in a revolution is

- A. 360
- B. 180
- C. 200
- D. 90

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 68 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the microcontroller used in Arduino UNO?

- A. ATmega328p
- B. ATmega2560
- C. ATmega32114
- D. TM4C123GH6PM

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 69 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What does p refer to in ATmega328p?

- A. Production
- B. Pico-Power
- C. Power-Pico
- D. Programmable on chip

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 70 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the default bootloader of the Arduino UNO?

- A. Opti boot bootloader
- B. AIR-boot
- C. Bare box
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 71 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which is the programming language used for controlling of Arduino?

- A. Assembly Language
- B. C Language
- C. Java
- D. Any of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 72 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Arduino IDE consists of 2 functions in the list below. What are they?

- A. Build () and loop()
- B. Setup () and build()
- C. Setup () and loop()
- D. Loop() and build()

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 73 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many analog input pins are there on the UNO board?

- A. 0
- B. 4
- C. 6
- D. 14

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 74 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the clock speed of Arduino Uno?

- A. 1 GHz
- B. 100 MHz
- C. 16 MHz
- D. 1 MHz

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 75 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What does IDE stand for?

- A. In Deep Environment
- B. Integrated Development Environment
- C. Internal Deep Escape
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 76 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Arduino UNO can source (provide current. or sink (absorb current. up to;

- A. 40 mA
- B. 100mA
- C. 4mA
- D. 1000mA

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 77 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If analog Read has a count value of 512 what is the voltage value at the A/D pin?

- A. 3.75 V
- B. 2.5 V
- C. 4.0 V
- D. 1.25 V

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 78 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many analog output pins does the Arduino UNO have?

- A. 0
- B. 1
- C. 2
- D. 4

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 79 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many times will the loop run for the following code?

```
int a;  
for(a=1; a<16;a++)
```

- A. 13
- B. 14
- C. 15
- D. 16

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 80 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following parameters is NOT a required part of the for loop?

- A. initialize
- B. increment
- C. condition
- D. Serial.println()

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 81 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following commands is used to input data from one of the analog ports?

A. analogRead

B. analogIn

C. opAmp

D. pwmRead

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 82 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Where does the Arduino store its program (sketch)?

A. external flash

B. on-board SRAM

C. EEPROM

D. on-board ROM

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 83 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What configuration is used to allow data to leave an Arduino through a digital port?

A. OUTPUT

B. DATAOUT

C. INPUT

D. dataOut

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 84 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What built-in device is used to communicate with the Arduino?

- A. upload link
- B. Keyboard
- C. Serial monitor
- D. all are valid methods

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 85 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

if an array has ten elements; what is the index of the last element

- A. eleven
- B. ten
- C. nine
- D. none of the above

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 86 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The Arduino uses which type signal to assign coded analog output values

- A. sine wave
- B. Square waves
- C. PWM
- D. Both A and B

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 87 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Forgetting to end a line with a semicolon will result in

- A. spelling error
- B. compile error
- C. concatenation of the following line
- D. continuing the statement on the next line

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 88 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The Arduino correlates temperature readings with what value?

- A. Current
- B. Voltage
- C. Inductance
- D. Coulomb

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 89 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The direction of rotation of a DC motor can be reversed

- A. By reversing the connections of both armature and the field winding with the supply
- B. By reversing the connections of either the armature or the field-winding connection with the supply
- C. By reducing the field flux
- D. By introducing an extra resistance in the armature circuit

Options :

1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 90 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following rules is used to determine the direction of rotation of D.C motor?

- A. Coulomb's Law
- B. Lenz's Law
- C. Fleming's Right-hand Rule
- D. Fleming's Left-hand Rule

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 91 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A stepper motor is a(n) _____ device.

- A. Mechanical
- B. Electrical
- C. Analogue
- D. Incremental

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 92 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following variable types is NOT recognized by the Arduino

- A. float
- B. int
- C. long
- D. All of these variable types are recognized by the Arduino

Options :

- 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 93 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following RAM memory is used by the Arduino

- A. SRAM
- B. DRAM
- C. SDRAM
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 94 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Another name for DIY is

- A. Commercial off the shelf (COTS)
- B. Build your own (BYO)
- C. Learning by doing
- D. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 95 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Arduino is a

- a. Microprocessor
- b. Microcontroller
- c. Microcomputer
- d. Central processing unit

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 96 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Raspberry Pi is a

- a. Microprocessor
- b. Microcontroller
- c. Microcomputer
- d. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 97 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following functions is not available in Arduino:

- a. Digital input
- b. Digital output
- c. Analog input
- d. Analog output

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 98 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many digital input pins are available in Arduino:

- a. 0
- b. 10
- c. 14
- d. 20

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 99 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many digital output pins are available in Arduino:

- a. 0
- b. 10
- c. 14
- d. 20

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 100 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The generation of tool paths in computerized machining is called

- a. CAD
- b. CAM
- c. CNC
- d. None of the above

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4