QUEBEC APPLIED SCIENCE AND TECHNOLOGY, SECONDARY IV · UNIT D

Technological World - Mechanical Engineering: Linking, Guiding, Materials and Manufacturing — Practice Test

Quebec Applied Science and Technology, Secondary IV • 25 questions

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A drill makes 12 holes per hour. In 3 hours it makes, in holes**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A force of 200 newtons acts on a cross section of area 4 cm². The stress, in newtons per cm², is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A material has density 2 grams per cm³ and volume 50 cm³. Its mass, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A sample has mass 200 grams and volume 50 cm³. Its density, in grams per cm³, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A threaded rod with pitch 1 millimetres per turn is turned 8 times. Its advance, in millimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A bar is bent at 2 places. Each bend is 90 degrees. The total bend angle, in degrees, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A bolted joint differs from a riveted joint because it can be**

A melted only

B taken apart

C painted only

D weighed only

Understand It with Pulse | Flag a mistake

8 **A constraint on a part limits its possible**

A colours

B movements

C temperatures

D prices

Understand It with Pulse | Flag a mistake

9 **A guiding control keeps a moving part on its intended**

- A colour
- B temperature
- C weight
- D path

Understand It with Pulse | Flag a mistake

10 **A hinge is a linking device that allows**

- A sliding only
- B melting
- C rotation
- D stretching

Understand It with Pulse | Flag a mistake

11 **A material sample stretches 2 millimetres under load and returns to its original length when unloaded. Its permanent stretch, in millimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **A mechanical property describes how a material behaves under**

A light only

B sound only

C forces

D colour only

Understand It with Pulse | Flag a mistake

13 **A sheet is cut into 4 equal strips. Each strip is 25 centimetres wide. The original width, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **A slide is a guiding control that allows motion in a**

A straight line

B circle only

C random path

D spiral

Understand It with Pulse | Flag a mistake

15 **A thermoplastic softens when heated and can be**

A burned only

B reshaped

C dissolved in water

D magnetized

Understand It with Pulse | Flag a mistake

16 **A thermosetting plastic hardens permanently when heated and cannot be**

- A cut
- B painted
- C reshaped by heating
- D weighed

Understand It with Pulse | Flag a mistake

17 **A drill makes 20 holes per hour. In 2 hours it makes, in holes**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **A force of 300 newtons acts on a cross section of area 5 cm². The stress, in newtons per cm², is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **A material has density 3 grams per cm³ and volume 40 cm³. Its mass, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **A sample has mass 300 grams and volume 100 cm³. Its density, in grams per cm³, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **A threaded rod with pitch 2 millimetres per turn is turned 6 times. Its advance, in millimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **A drill makes 15 holes per hour. In 4 hours it makes, in holes**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **A force of 120 newtons acts on a cross section of area 3 cm². The stress, in newtons per cm², is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A material has density 5 grams per cm³ and volume 20 cm³. Its mass, in grams, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **A sample has mass 150 grams and volume 30 cm³. Its density, in grams per cm³, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	36	**10.**	C	**19.**	120
2.	50	**11.**	0	**20.**	3
3.	100	**12.**	C	**21.**	12
4.	4	**13.**	100	**22.**	60
5.	8	**14.**	A	**23.**	40
6.	180	**15.**	B	**24.**	100
7.	B	**16.**	C	**25.**	5
8.	B	**17.**	40		
9.	D	**18.**	60		

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