QUEBEC APPLIED SCIENCE AND TECHNOLOGY, SECONDARY IV · UNIT E

Technological World - Motion Transmission and Transformation Systems — 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 crank makes 4 turns. A piston linked by a connecting rod makes one stroke per turn. The number of piston strokes is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A driver gear with 20 teeth turns at 80 revolutions per minute and drives a gear with 80 teeth. The driven gear speed, in revolutions per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A driver pulley of diameter 20 centimetres turns at 100 revolutions per minute and drives a pulley of diameter 40 centimetres by belt. The driven pulley speed, in revolutions per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A screw system with pitch 3 millimetres per turn is turned 5 times. Its advance, in millimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A belt drive driver turns at 240 revolutions per minute and the driven pulley turns at 60 revolutions per minute. The speed reduction factor is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A belt that is crossed between two pulleys reverses the direction of**

A colour

B temperature

C material

D rotation

Understand It with Pulse | Flag a mistake

7 **A cam is a rotating part with a shaped edge that lifts a**

- A paint
- B wire
- C follower
- D magnet

Understand It with Pulse | Flag a mistake

8 **A gear assembly of several gears can reverse direction an even number of times to return to the**

- A opposite direction always
- B stopped state
- C melted state
- D original direction

Understand It with Pulse | Flag a mistake

9 **A gear system that decreases speed increases the output**

- A speed again
- B colour
- C torque
- D temperature

Understand It with Pulse | Flag a mistake

10 **A gear system that increases speed decreases the output**

- A direction
- B torque
- C colour
- D material

Understand It with Pulse | Flag a mistake

11 **A gear train multiplies speed by 4 and then divides it by 2. Its total speed multiplication factor is**

ANSWER

Understand It with Pulse | Flag a mistake

12 **A motion transmission system transfers motion from a driver to a**

A driven part

B painted part

C heated part

D melted part

Understand It with Pulse | Flag a mistake

13 **Rotation of the pinion is changed into linear motion of the**

A rack

B cam

C belt

D chain

Understand It with Pulse | Flag a mistake

14 **A crank mechanism combines a crank, a connecting rod and a**

A lens

B slider

C magnet

D battery

Understand It with Pulse | Flag a mistake

15 **A screw gear system changes fast rotation into slow linear motion and gives a large**

A colour

B temperature

C sound

D force

Understand It with Pulse | Flag a mistake

16 **A slide changes rotation into linear motion when driven by a rotating**

A magnet

B crank

C lens

D battery

Understand It with Pulse | Flag a mistake

17 **A transmission system has input speed 60 revolutions per minute and output speed 180 revolutions per minute. Its speed multiplication factor is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **A crank makes 9 turns. A piston linked by a connecting rod makes one stroke per turn. The number of piston strokes is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **A driver gear with 30 teeth turns at 120 revolutions per minute and drives a gear with 60 teeth. The driven gear speed, in revolutions per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **A driver pulley of diameter 30 centimetres turns at 180 revolutions per minute and drives a pulley of diameter 60 centimetres by belt. The driven pulley speed, in revolutions per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **A screw system with pitch 2 millimetres per turn is turned 10 times. Its advance, in millimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **A crank makes 7 turns. A piston linked by a connecting rod makes one stroke per turn. The number of piston strokes is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **A driver gear with 18 teeth turns at 90 revolutions per minute and drives a gear with 54 teeth. The driven gear speed, in revolutions per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A driver pulley of diameter 14 centimetres turns at 140 revolutions per minute and drives a pulley of diameter 28 centimetres by belt. The driven pulley speed, in revolutions per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **A screw system with pitch 4 millimetres per turn is turned 6 times. Its advance, in millimetres, is**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	4	**10.**	B	**19.**	60
2.	20	**11.**	2	**20.**	90
3.	50	**12.**	A	**21.**	20
4.	15	**13.**	A	**22.**	7
5.	4	**14.**	B	**23.**	30
6.	D	**15.**	D	**24.**	70
7.	C	**16.**	B	**25.**	24
8.	D	**17.**	3		
9.	C	**18.**	9		

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