PRINCE EDWARD ISLAND SCIENCE 10 · UNIT C · 25 QUESTIONS

Designing Mechanical Systems — Practice Test

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 **In machine design, which term matches this description: bar turning around a pivot?**

- A lever
- B fulcrum
- C pulley
- D gear

Understand It with Pulse | Flag a mistake

2 **In machine design, what is the main purpose or meaning of lever?**

A bar turning around a pivot

B pivot point of a lever

C wheel lifting with a rope

D toothed wheel transferring motion

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3 **In machine design, which term matches this description: pivot point of a lever?**

A pulley

B gear

C fulcrum

D mechanical advantage

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4 **In machine design, what is the main purpose or meaning of fulcrum?**

- A wheel lifting with a rope
- B toothed wheel transferring motion
- C force gain from a machine
- D pivot point of a lever

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5 **In machine design, which term matches this description: wheel lifting with a rope?**

- A pulley
- B gear
- C mechanical advantage
- D work

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6 **In machine design, what is the main purpose or meaning of pulley?**

- A toothed wheel transferring motion
- B wheel lifting with a rope
- C force gain from a machine
- D force × distance moved

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7 **In machine design, which term matches this description: toothed wheel transferring motion?**

- A mechanical advantage
- B work
- C gear
- D force

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8 **In machine design, what is the main purpose or meaning of gear?**

- A force gain from a machine
- B force × distance moved
- C push or pull on an object
- D toothed wheel transferring motion

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9 **In machine design, which term matches this description: force gain from a machine?**

- A mechanical advantage
- B work
- C force
- D efficiency

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10 **In machine design, what is the main purpose or meaning of mechanical advantage?**

- A force × distance moved
- B force gain from a machine
- C push or pull on an object
- D useful output ÷ input

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11 **In machine design, which term matches this description: force times distance moved?**

- A force
- B efficiency
- C work
- D inclined plane

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12 **In machine design, what is the main purpose or meaning of work?**

A push or pull on an object

B useful output ÷ input

C sloping surface lifting a load

D force × distance moved

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13 **In machine design, which term matches this description: push or pull on an object?**

A force

B efficiency

C inclined plane

D prototype

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14 **In machine design, what is the main purpose or meaning of force?**

- A useful output ÷ input
- B push or pull on an object
- C sloping surface lifting a load
- D early model for testing

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15 **A machine design display holds 36 items and a second display holds 3 items. The total number of items is**

ANSWER _____

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16 **A machine design collection has 48 items. After 6 items are removed, the number of items left is**

ANSWER _____

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17 **In machine design, 30 notes are shared equally among 5 students. Each student receives**

ANSWER _____

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18 **A machine design project uses 7 groups with 42 cards in each group. The total number of cards is**

ANSWER _____

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19 **A machine design display holds 24 items and a second display holds 4 items. The total number of items is**

ANSWER _____

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20 **A machine design collection has 54 items. After 6 items are removed, the number of items left is**

ANSWER _____

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21 **In machine design, 40 notes are shared equally among 8 students. Each student receives**

ANSWER _____

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22 **A machine design project uses 4 groups with 28 cards in each group. The total number of cards is**

ANSWER _____

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23 **A machine design display holds 60 items and a second display holds 10 items. The total number of items is**

ANSWER _____

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24 **A machine design collection has 32 items. After 8 items are removed, the number of items left is**

ANSWER _____

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25 **In machine design, 36 notes are shared equally among 3 students. Each student receives**

ANSWER

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ANSWER KEY

1. A
2. A
3. C
4. D
5. A
6. B
7. C
8. D
9. A
10. B
11. C
12. D
13. A
14. B
15. 39
16. 42
17. 6
18. 294
19. 28
20. 48
21. 5
22. 112
23. 70
24. 24
25. 12

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