

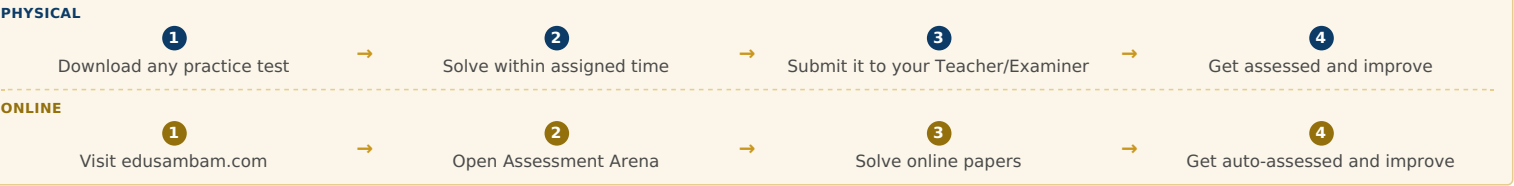
EDUSAMBAM ASSESSMENT SERIES

Physics Comprehensive Practice Test 4

PRINTABLE PRACTICE WORKSHEET

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YOUR PHYSICAL & ONLINE SELF-ASSESSMENT ROADMAP



Candidate Name:		Roll No.:	
Class / Grade:		Date:	
School / Institution:		Test Centre:	

Subject	Physics	Topic	Physics Comprehensive Practice Test 4	Total Marks	100
Total Questions	45	Time Allowed	1 Hour (60 minutes)	Version	A

GENERAL INSTRUCTIONS

1. Read each question carefully before answering.
2. For Section A and Section B, mark one answer only.
3. For Sections C and E, write your answer clearly in the space provided.
4. For Section D, write the correct letter from Column B against each item in Column A.
5. Do not use correction fluid. Keep all answers clear and legible.
6. This worksheet is prepared from the EDUSAMBAM practice assessment supplied for this paper.

PAPER PATTERN

Section	Questions	Marks Each	Total
Section A — Multiple Choice	15	2	30
Section B — True / False	10	2	20
Section C — Fill in the Blank	10	2	20
Section D — Matching	5 pairs	2	10
Section E — Short Answer	5	4	20
Total	45	—	100

Section A — Multiple Choice

30 marks

1. A book held above a table has which type of energy?

- A. Sound energy
- C. Kinetic energy

- B. Elastic potential energy
- D. Gravitational potential energy

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

2. Which of these is a good electrical conductor?

- A. Copper
- C. Glass

- B. Rubber
- D. Dry wood

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

3. What is Newton's Second Law formula?

- A. Speed = Distance ÷ Time
- C. Mass = Force × Acceleration

- B. Force = Mass ÷ Acceleration
- D. Force = Mass × Acceleration

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

4. In a vacuum with no air resistance, how do a feather and a hammer fall?

- A. The hammer falls much faster
- C. Neither one falls at all

- B. The feather falls faster
- D. They fall at exactly the same rate

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

5. What unit is heat measured in?

- A. Degrees Celsius
- C. Watts

- B. Newtons
- D. Joules

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

6. What is refraction?

A. Light disappearing completely

B. Light bouncing directly backward

C. Light changing color permanently

D. The bending of light as it passes between different materials

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

7. What is the name for a liquid changing directly into a gas?

A. Condensation

B. Deposition

C. Freezing

D. Boiling / Evaporation

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

8. Which type of quantity has both size and direction?

A. Vector

B. Scalar

C. Constant

D. Uniform

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

9. Roughly what is standard atmospheric pressure at sea level?

A. 9.8 Pa

B. 343 Pa

C. 1,000 Pa

D. About 101,325 Pa

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

10. What determines the pitch of a sound?

A. Frequency

B. Amplitude only

C. The medium's color

D. The listener's distance only

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

11. Which branch of physics covers relativity and quantum mechanics?

A. Classical mechanics

B. Optics

C. Thermodynamics

D. Modern physics

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

12. What does power measure?

A. How quickly work is done

B. The total distance travelled

C. The mass of an object

D. The direction of a force

Answer: ☐A ☐B ☐C ☐D

Advanced • 2 pts

13. Roughly what percentage of electrical energy does a traditional incandescent bulb convert into visible light?

A. About 90%

B. About 50%

C. About 5–10%

D. 100%

Answer: ☐A ☐B ☐C ☐D

Advanced • 2 pts

14. Why do black surfaces heat up faster in sunlight than white surfaces?

A. Black surfaces reflect nearly all light energy

B. Black surfaces absorb nearly all light energy instead of reflecting it

C. White surfaces absorb more heat than black ones

D. Color has no effect on heat absorption

Answer: ☐A ☐B ☐C ☐D

Advanced • 2 pts

15. Why does a wheelchair ramp make it easier to move a wheelchair up 1 metre?

A. It requires less force, but the wheelchair travels a much longer distance

B. It removes the need for any force at all

C. It reduces the total work required to zero

D. It increases the force needed

Answer: ☐A ☐B ☐C ☐D

Advanced • 2 pts

Section B — True / False

20 marks

16. A light bulb can transform electrical energy into light and heat.

A. True ☐

B. False ☐

Basic • 2 pts

17. A parallel circuit has only one path for current.

A. True ☐

B. False ☐

Basic • 2 pts

18. A net unbalanced force can change an object’s motion.

A. True ☐

B. False ☐

Basic • 2 pts

19. The gravitational force between two masses becomes weaker as they move farther apart.

A. True ☐

B. False ☐

Basic • 2 pts

20. Convection is heat transfer mainly through bulk movement of a fluid.

A. True ☐

B. False ☐

Intermediate • 2 pts

21. Reflection and refraction are identical processes.

A. True ☐

B. False ☐

Intermediate • 2 pts

22. Evaporation occurs only at the boiling point.
A. True ☐ B. False ☐

23. A steeper distance-time graph indicates a greater speed.
A. True ☐ B. False ☐

24. A submarine changes its average density by using ballast tanks.
A. True ☐ B. False ☐

25. The watt is the SI unit of work.
A. True ☐ B. False ☐

Intermediate · 2 pts

Intermediate · 2 pts

Intermediate · 2 pts

Intermediate · 2 pts

Section C — Fill in the Blank

20 marks

26. In a typical fuel power plant, chemical energy is changed first into ____ energy when fuel burns.
Answer: _____

27. The opposition to electric current is called ____.
Answer: _____

28. Newton’s Third Law describes equal and ____ reaction forces.
Answer: _____

29. The acceleration due to Earth’s gravity is about ____ m/s².
Answer: _____

30. Heat transfer by the movement of a fluid is called ____.
Answer: _____

31. A mirror works primarily by ____.
Answer: _____

32. The change from gas to liquid is called ____.
Answer: _____

33. The upward force from a fluid is called ____ force.
Answer: _____

34. Human hearing is approximately from ____ Hz to 20,000 Hz.
Answer: _____

35. One watt equals one joule per ____.
Answer: _____

Basic · 2 pts

Basic · 2 pts

Basic · 2 pts

Basic · 2 pts

Intermediate · 2 pts

Intermediate · 2 pts

Intermediate · 2 pts

Intermediate · 2 pts

Intermediate · 2 pts

Intermediate · 2 pts

Section D — Matching

10 marks

36. Match each term to its correct definition.

Column A	Answer	Column B
Parallel circuit	_____	A. Heat transfer by moving fluid
Newton’s Second Law	_____	B. Joule per second
Convection	_____	C. Multiple current paths
Reflection	_____	D. Light bouncing from a surface
Watt	_____	E. $F = ma$

Section E — Short Answer

20 marks

41. Explain why household circuits are usually connected in parallel.

42. How does friction affect a real energy-conversion system?

Advanced · 4 pts

Advanced · 4 pts

43. Explain the difference between reflection and refraction.

Advanced · 4 pts

44. Why can a submarine rise or sink by changing its ballast tanks?

Advanced · 4 pts

45. What is the relationship between work and power?

Advanced · 4 pts

Candidate Signature: _____ **Invigilator Signature:** _____

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Marks Obtained: _____ / 100

Checked By: _____

Result / Grade: _____

Date Checked: _____

EDUSAMBAM ASSESSMENT SERIES

Physics Comprehensive Practice Test 4 — Answer Key

Teacher reference: equivalent grammatically correct wording is acceptable for open-ended items when the meaning is preserved.

Section A — Multiple Choice

- | | |
|------|-------|
| 1. D | 9. D |
| 2. A | 10. A |
| 3. D | 11. D |
| 4. D | 12. A |
| 5. D | 13. C |
| 6. D | 14. B |
| 7. D | 15. A |
| 8. A | |

Section B — True / False

- | | |
|-----------|-----------|
| 16. False | 21. True |
| 17. True | 22. True |
| 18. False | 23. False |
| 19. False | 24. False |
| 20. False | 25. True |

Section C — Fill in the Blank

- | | |
|----------------|------------------|
| 26. heat | 31. reflection |
| 27. resistance | 32. condensation |
| 28. opposite | 33. buoyant |
| 29. 9.8 | 34. 20 |
| 30. convection | 35. second |

Section D — Matching

- | | |
|-----------------------------|--------------------|
| 36. Parallel circuit — C | 39. Reflection — D |
| 37. Newton’s Second Law — E | 40. Watt — B |
| 38. Convection — A | |

Section E — Short Answer (Model Answers)

- 41.** separate paths; one fails; others; independent
- 42.** heat; energy spread; efficiency; loss
- 43.** reflection; bounce; refraction; bend; medium
- 44.** density; ballast; water; buoyancy
- 45.** work; time; rate; power