

EDUSAMBAM ASSESSMENT SERIES

Science vs Pseudoscience & The Scientific Revolution

PRINTABLE PRACTICE WORKSHEET

EDUSAMBAM, working on building your Foundational Concepts. Visit edusambam.com for Auto-graded Self-assessment Experience.

YOUR PHYSICAL & ONLINE SELF-ASSESSMENT ROADMAP

PHYSICAL

1

Download any practice test



2

Solve within assigned time



3

Submit it to your Teacher/Examiner



4

Get assessed and improve

ONLINE

1

Visit edusambam.com



2

Open Assessment Arena



3

Solve online papers



4

Get auto-assessed and improve

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

Subject	General Knowledge	Topic	Science vs Pseudoscience & The Scientific Revolution	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 — Column Matching	5 pairs	2	10
Section E — Short Answer	5	4	20
Total	45	—	100

Section A — Multiple Choice

30 marks

1. What is the key feature that distinguishes science from pseudoscience?

Basic • 2 pts

- A.** It uses complicated language
C. Its claims can be tested and proven false

- B.** It has been around for a long time
D. It is popular with the public

Answer: ☐A ☐B ☐C ☐D

2. Which process involves other scientists evaluating research before publication?

Basic • 2 pts

- A.** Self-publishing
C. Public voting

- B.** Peer review
D. Media coverage

Answer: ☐A ☐B ☐C ☐D

3. Which 16th-century astronomer proposed the heliocentric model?

Basic • 2 pts

- A.** Nicolaus Copernicus
C. Aristotle

- B.** Isaac Newton
D. Ptolemy

Answer: ☐A ☐B ☐C ☐D

4. Who faced trial by the Church for supporting the heliocentric model?

Basic • 2 pts

- A.** Johannes Kepler
C. René Descartes

- B.** Isaac Newton
D. Galileo Galilei

Answer: ☐A ☐B ☐C ☐D

5. Who formulated the laws of planetary motion?

Intermediate • 2 pts

- A.** Galileo Galilei
C. Francis Bacon

- B.** Johannes Kepler
D. Nicolaus Copernicus

Answer: ☐A ☐B ☐C ☐D

6. Who formulated the law of universal gravitation?

A. Galileo Galilei

B. Johannes Kepler

C. Isaac Newton

D. René Descartes

Answer: ☐A ☐B ☐C ☐D

7. Which philosopher is known for introducing "falsifiability" as a scientific criterion?

A. Francis Bacon

B. René Descartes

C. Isaac Newton

D. Karl Popper

Answer: ☐A ☐B ☐C ☐D

8. What is generally the first step of the scientific method?

A. Observation

B. Conclusion

C. Publication

D. Peer review

Answer: ☐A ☐B ☐C ☐D

9. What do we call the tendency to favor information that confirms existing beliefs?

A. Falsifiability

B. Confirmation bias

C. Peer review

D. Empiricism

Answer: ☐A ☐B ☐C ☐D

10. Which model places the Sun at the center of the solar system?

A. Geocentric model

B. Ptolemaic model

C. Heliocentric model

D. Lunar model

Answer: ☐A ☐B ☐C ☐D

11. Which model places the Earth at the center of the universe?

A. Geocentric model

B. Heliocentric model

C. Copernican model

D. Kepler model

Answer: ☐A ☐B ☐C ☐D

12. Who promoted empirical, inductive reasoning during the Scientific Revolution?

A. Isaac Newton

B. Francis Bacon

C. Johannes Kepler

D. Galileo Galilei

Answer: ☐A ☐B ☐C ☐D

13. What famous work did Copernicus publish in 1543?

A. De Revolutionibus Orbium Coelestium

B. Principia Mathematica

C. Dialogue Concerning the Two Chief World Systems

D. Novum Organum

Answer: ☐A ☐B ☐C ☐D

14. Which of these is often cited as an example of pseudoscience?

A. Chemistry

B. Astrology

C. Astronomy

D. Physics

Answer: ☐A ☐B ☐C ☐D

15. What time period is generally associated with the Scientific Revolution?

A. 10th–11th century

B. 12th–13th century

C. 16th–17th century

D. 19th–20th century

Answer: ☐A ☐B ☐C ☐D

Section B — True / False

20 marks

16. Pseudoscience claims are typically supported by rigorous, repeatable evidence.

A. True ☐

B. False ☐

17. The scientific method includes forming a hypothesis.

A. True ☐

B. False ☐

18. Galileo supported the heliocentric model of the solar system.

A. True ☐

B. False ☐

19. Correlation always proves causation.

A. True ☐

B. False ☐

20. Karl Popper introduced the idea of falsifiability.

A. True ☐

B. False ☐

21. The geocentric model was replaced by the heliocentric model during the Scientific Revolution.

A. True ☐

B. False ☐

22. René Descartes is associated with rationalism.
A. True ☐ **B.** False ☐

23. Peer review means research is checked by other scientists before publication.
A. True ☐ **B.** False ☐

24. Homeopathy is widely accepted by the scientific community as effective beyond a placebo effect.
A. True ☐ **B.** False ☐

25. The Scientific Revolution had no lasting effect on modern science.
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. A pseudoscientific claim typically cannot be _____, unlike a genuinely scientific one.
Answer: _____

27. The scientific method begins with careful _____.
Answer: _____

28. Copernicus proposed that the _____ is at the center of the solar system.
Answer: _____

29. Kepler's laws describe the motion of _____ around the Sun.
Answer: _____

30. Newton formulated the law of universal _____.
Answer: _____

31. Galileo's trial by the Inquisition took place in the year _____.
Answer: _____

32. Copernicus's major work was published in the year _____.
Answer: _____

33. _____ is credited with promoting empirical, inductive scientific reasoning.
Answer: _____

34. René Descartes is famous for the phrase "_____."
Answer: _____

35. The tendency to favor evidence that supports what we already believe is called _____ bias.
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 — Column Matching

10 marks

36-40. Match each term to its correct definition.

Column A	Answer	Column B
Nicolaus Copernicus	_____	A. Defended Heliocentrism Before the Inquisition
Galileo Galilei	_____	B. Laws of Planetary Motion
Johannes Kepler	_____	C. Law of Universal Gravitation
Isaac Newton	_____	D. Falsifiability
Karl Popper	_____	E. Heliocentric Model

Section E — Short Answer

20 marks

41. Explain briefly why astrology is generally considered a pseudoscience.

42. Why is peer review important in scientific research?

Advanced • 4 pts

Advanced • 4 pts

43. What was significant about the shift from a geocentric to a heliocentric model?

Advanced · 4 pts

44. Why is Galileo an important figure in the history of science?

Advanced · 4 pts

45. Explain briefly what "falsifiability" means in distinguishing science from pseudoscience.

Advanced · 4 pts

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

FOR OFFICE USE ONLY

Marks Obtained: _____ / 100

Checked By: _____

Result / Grade: _____

Date Checked: _____

EDUSAMBAM ASSESSMENT SERIES
Science vs Pseudoscience & The Scientific Revolution — Answer Key

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

Section A — Multiple Choice

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

Section B — True / False

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

Section C — Fill in the Blank

- | | |
|-----------------|---------------------|
| 26. tested | 31. 1633 |
| 27. observation | 32. 1543 |
| 28. sun | 33. francis bacon |
| 29. planets | 34. cogito ergo sum |
| 30. gravitation | 35. confirmation |

Section D — Column Matching

- | | |
|-----------------------------|----------------------|
| 36. Nicolaus Copernicus — E | 39. Isaac Newton — C |
| 37. Galileo Galilei — A | 40. Karl Popper — D |
| 38. Johannes Kepler — B | |

Section E — Short Answer (Model Answers)

- | |
|---|
| 41. not falsifiable; not testable; lacks evidence; no predictive |
| 42. verify; errors; accuracy; checked before publication |
| 43. changed understanding; foundational; place in universe; modern astronomy |
| 44. telescope; observational evidence; persecuted; inquisition |
| 45. proven false; tested; disproven; capable of being wrong |