

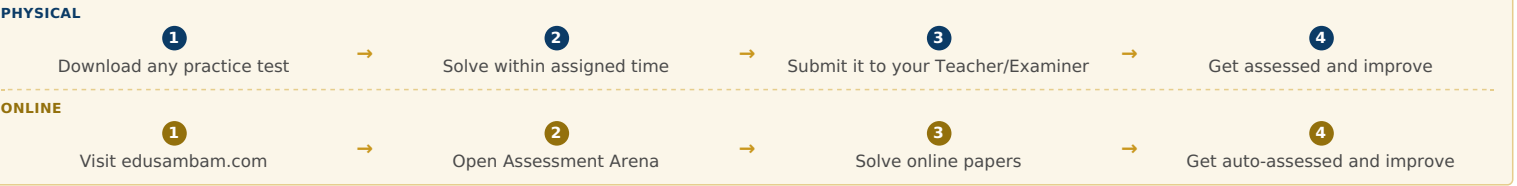
EDUSAMBAM ASSESSMENT SERIES

Chemistry Comprehensive Practice Test 1

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	Chemistry	Topic	Chemistry Comprehensive Practice Test 1	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 Choice30 marks

1. Which particle has a positive charge?

A. Electron

B. Proton

C. Neutron

D. Photon

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

2. The atomic number of an element equals the number of:

A. Neutrons only

B. Protons only

C. Protons plus neutrons

D. Electrons plus neutrons

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

3. Which type of bond is formed mainly by transfer of electrons?

A. Ionic

B. Covalent

C. Metallic

D. Hydrogen

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

4. A balanced chemical equation must have the same number of each type of:

A. Molecule

B. Compound

C. Atom

D. Reaction

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

5. A solution with pH 3 is:

A. Strongly acidic

B. Neutral

C. Weakly basic

D. Strongly basic

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

6. Which method is most suitable for separating an insoluble solid from a liquid?	Intermediate • 2 pts
A. Filtration C. Chromatography Answer: ☐ A ☐ B ☐ C ☐ D	B. Distillation D. Sublimation
7. One mole contains approximately:	Intermediate • 2 pts
A. 6.02×10^{23} particles C. 3.00×10^8 particles Answer: ☐ A ☐ B ☐ C ☐ D	B. 9.81×10^2 particles D. 1.60×10^{-19} particles
8. Oxidation at an electrode occurs at the:	Intermediate • 2 pts
A. Cathode C. Salt bridge only Answer: ☐ A ☐ B ☐ C ☐ D	B. Anode D. Electrolyte surface only
9. Which property is typical of metals?	Intermediate • 2 pts
A. Poor electrical conductivity C. Malleability Answer: ☐ A ☐ B ☐ C ☐ D	B. Brittleness in all forms D. Lack of lustre
10. Which substance is commonly used as a base in household cleaning?	Intermediate • 2 pts
A. Sodium hydroxide C. Sodium chloride Answer: ☐ A ☐ B ☐ C ☐ D	B. Carbon dioxide D. Oxygen
11. Across a period, atomic radius generally decreases because:	Intermediate • 2 pts
A. Nuclear charge increases while shielding changes little C. Protons disappear Answer: ☐ A ☐ B ☐ C ☐ D	B. More electron shells are added D. The nucleus becomes less positive
12. Which equation represents neutralization?	Advanced • 2 pts
A. $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$ C. $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$ Answer: ☐ A ☐ B ☐ C ☐ D	B. $\text{NaCl} \rightarrow \text{Na} + \text{Cl}$ D. $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
13. What is the main solute in a salt-water solution?	Advanced • 2 pts
A. Water C. Oxygen Answer: ☐ A ☐ B ☐ C ☐ D	B. Sodium chloride D. Hydrogen
14. Which hydrocarbon contains a carbon-carbon double bond?	Advanced • 2 pts
A. Alkane C. Alcohol Answer: ☐ A ☐ B ☐ C ☐ D	B. Alkene D. Carboxylic acid
15. During electrolysis of an aqueous ionic solution, positive ions generally move toward the:	Advanced • 2 pts
A. Anode C. Salt bridge Answer: ☐ A ☐ B ☐ C ☐ D	B. Cathode D. Voltmeter

Section B — True / False	20 marks
16. An acid has a pH below 7 at 25 °C.	Basic • 2 pts
A. True ☐ B. False ☐	
17. Neutrons carry a negative electrical charge.	Basic • 2 pts
A. True ☐ B. False ☐	
18. Ionic compounds are formed through electron transfer and electrostatic attraction.	Basic • 2 pts
A. True ☐ B. False ☐	
19. A catalyst is permanently consumed during a reaction.	Basic • 2 pts
A. True ☐ B. False ☐	
20. Filtration can separate a soluble solid from water after it has completely dissolved.	Intermediate • 2 pts
A. True ☐ B. False ☐	
21. Oxidation and reduction occur together in a redox reaction.	Intermediate • 2 pts
A. True ☐ B. False ☐	

22. A mole is a counting unit for particles.
A. True ☐ **B.** False ☐

23. Alkenes contain at least one carbon-carbon double bond.
A. True ☐ **B.** False ☐

24. Boiling is a chemical change because a new substance is always formed.
A. True ☐ **B.** False ☐

25. In a galvanic cell, a spontaneous redox reaction can produce electrical energy.
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. The negatively charged subatomic particle is the _____.
Answer: _____

27. A substance that increases hydrogen-ion concentration in water is an _____.
Answer: _____

28. The horizontal rows of the periodic table are called _____.
Answer: _____

29. The number of protons in an atom is its atomic _____.
Answer: _____

30. The process in which a solid changes directly to a gas is called _____.
Answer: _____

31. A bond formed by transfer of electrons is an _____ bond.
Answer: _____

32. The amount of substance containing 6.02×10^{23} particles is one _____.
Answer: _____

33. The electrode at which reduction occurs is the _____.
Answer: _____

34. The reaction of an acid with a base is called _____.
Answer: _____

35. Compounds containing carbon and hydrogen only are called _____.
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
pH	_____	A. Catalyst
Mole	_____	B. Anode
Catalyst	_____	C. Alkene
Anode	_____	D. pH
Alkene	_____	E. Mole

Section E — Short Answer

20 marks

41. Explain why an atom is electrically neutral when it has equal numbers of protons and electrons.

42. Distinguish between an element and a compound.

Advanced · 4 pts

Advanced · 4 pts

43. Why does increasing temperature often increase reaction rate?

Advanced · 4 pts

44. Explain oxidation and reduction in terms of electron transfer.

Advanced · 4 pts

45. Describe how a galvanic cell converts chemical energy into electrical energy.

Advanced · 4 pts

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

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Marks Obtained: _____ / 100

Checked By: _____

Result / Grade: _____

Date Checked: _____

EDUSAMBAM ASSESSMENT SERIES

Chemistry Comprehensive Practice Test 1 — Answer Key

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

Section A — Multiple Choice

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

Section B — True / False

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

Section C — Fill in the Blank

- | | |
|-----------------|--------------------|
| 26. electron | 31. ionic |
| 27. acid | 32. mole |
| 28. periods | 33. cathode |
| 29. number | 34. neutralization |
| 30. sublimation | 35. hydrocarbons |

Section D — Matching

- | | |
|------------------|----------------|
| 36. pH — D | 39. Anode — B |
| 37. Mole — E | 40. Alkene — C |
| 38. Catalyst — A | |

Section E — Short Answer (Model Answers)

- 41.** equal positive and negative charges cancel; protons and electrons have equal opposite charges
- 42.** element contains one type of atom; compound contains two or more elements chemically combined
- 43.** particles have greater kinetic energy; more collisions have enough activation energy
- 44.** oxidation is loss of electrons; reduction is gain of electrons
- 45.** spontaneous redox reaction; electron flow through external circuit; oxidation at anode and reduction at cathode