

# CHEMISTRY Exam Paper

## Subjective Questions

1. Explain the difference between ionic and covalent bonds with examples.

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Answer:

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2. What is the periodic table and how does it relate to the properties of elements?

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Answer:

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3. Discuss the process of electrolysis and its applications.

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Answer:

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4. Describe the various types of chemical reactions and provide examples.

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Answer:

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5. What is the concept of molarity and how is it calculated?

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Answer:

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6. Explain the laws of thermodynamics and their importance in chemical reactions.

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Answer:

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7. What is the difference between acids, bases, and salts? Explain with examples.

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Answer:

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8. Describe the process of oxidation and reduction in redox reactions.

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Answer:

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9. What is the role of catalysts in chemical reactions?

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Answer:

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10. Explain the concept of chemical equilibrium and Le Chatelier's principle.

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Answer:

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### MCQ Questions

11. What is the atomic number of Hydrogen?

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|------|------|
| a) 1 | b) 2 |
| c) 3 | d) 4 |
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12. What is the formula for water?

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|---------------------|----------------------------------|
| a) H <sub>2</sub> O | b) CO <sub>2</sub>               |
| c) O <sub>2</sub>   | d) H <sub>2</sub> O <sub>2</sub> |
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13. Which element is represented by the symbol "O"?

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|-----------|-----------|
| a) Oxygen | b) Osmium |
| c) Ozone  | d) Onium  |
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14. What is the chemical formula of methane?

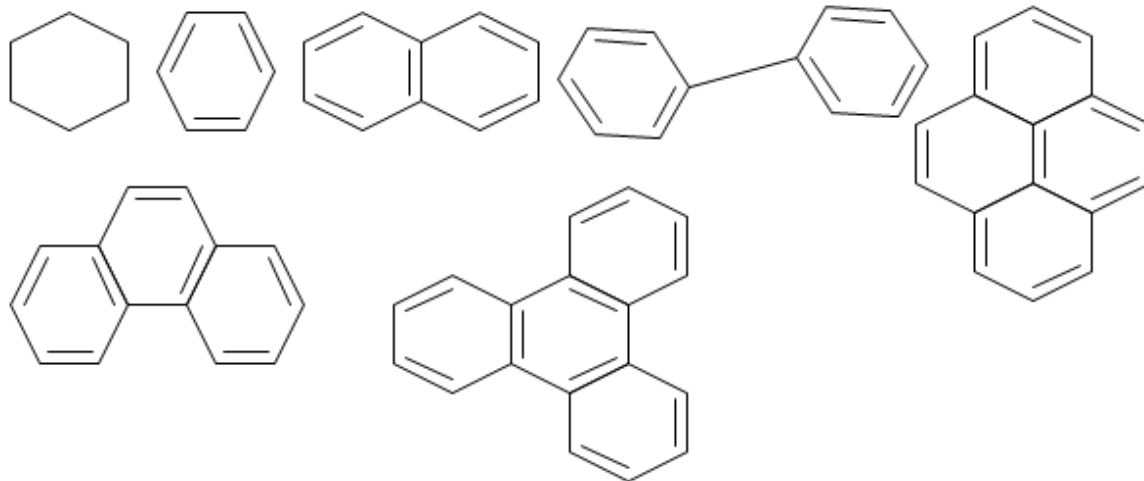
- |                                  |                                   |
|----------------------------------|-----------------------------------|
| a) CH <sub>4</sub>               | b) C <sub>2</sub> H <sub>6</sub>  |
| c) C <sub>3</sub> H <sub>8</sub> | d) C <sub>4</sub> H <sub>10</sub> |
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15. What is the atomic number of Carbon?

- |       |       |
|-------|-------|
| a) 6  | b) 8  |
| c) 12 | d) 14 |
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### Diagram Questions

16. Draw the molecular structure of methane ( $\text{CH}_4$ ).



17. Illustrate the pH scale and label the acidic, neutral, and basic regions.

