

1. Straightforward Prompts

Explanation:

Straightforward prompts directly ask the AI to perform a task using clear and simple instructions, without any extra structure, examples, or constraints.

Key Features:

Simple and direct

Easy to use

Works well for basic tasks

Example:

“Explain Ohm’s Law.”

“Summarize the following paragraph.”

Use Cases:

- ✓ Definitions
- ✓ Simple explanations
- ✓ General knowledge queries

2. Tabular Format Prompting

Explanation:

In tabular format prompting, the user instructs the AI to present information in the form of a table with rows and columns.

Key Features:

Structured output

Easy comparison and readability

Reduces ambiguity

Example:

“Explain advantages and disadvantages of ICs in a table.”

Sample Output:

| Advantages | Disadvantages |
|-----------------------|---------------------|
| Small size | High initial cost |
| Low power consumption | Difficult to repair |

Use Cases:

- ✓ Comparisons
- ✓ Data organization
- ✓ Study notes and reports

3. Missing Word Prompting

Explanation:

Missing word prompting provides a sentence or statement with blank spaces, and the AI is asked to fill in the correct word(s).

Key Features:

Tests knowledge recall

Useful for learning and assessments

Encourages contextual understanding

Example:

“Semiconductors have conductivity between _____ and _____.”

Answer:

Conductors and insulators

Use Cases:

- ✓ Educational quizzes
- ✓ Language learning
- ✓ Concept reinforcement

4. Preceding Question Prompting

Explanation:

In preceding question prompting, earlier questions or context are provided before asking the main question. The AI uses this prior information to generate a more accurate response.

Key Features:

Context-aware responses

Improves accuracy

Maintains continuity

Example:

“What is a semiconductor?”

“What are its properties?”

“Now explain its applications.”

Use Cases:

- ✓ Step-by-step learning
- ✓ Concept building
- ✓ Complex explanations

Comparison Summary

| Prompt Type | Purpose | Effectiveness |
|-----------------|-----------------|-------------------|
| Straightforward | Direct tasks | Simple & fast |
| Tabular Format | Structured info | Clear & organized |

| | | |
|--------------------|------------------|---------------|
| Missing Word | Recall & testing | Educational |
| Preceding Question | Context building | High accuracy |
| | | |

Conclusion

Different prompt engineering types serve different purposes. Straightforward prompts are best for simple tasks, tabular prompts organize information clearly, missing word prompts aid learning and testing, and preceding question prompts improve context and understanding.