



**Subject: Prompt engineering**

**Chapter:**

**Category: Assignment 3**

**MCQs**

1) Which of the following scenarios would benefit most from zero-shot prompting?

- i) Tasks with limited or no training data available
- ii) Tasks requiring rapid deployment and adaptation
- iii) Tasks with clearly defined and narrow scope

**iv) All of the above**

2) In a zero-shot prompt for a language translation task, which of the following would be the most effective approach?

- i) Providing a few examples of translated sentences
- ii) Specifying the source and target languages
- iii) Describing the desired translation style or tone

**iv) A combination of ii) and iii)**

3) Which of the following is a potential advantage of one-shot prompting compared to zero-shot prompting?

- i) Improved performance due to the provided example
- ii) Reduced computational complexity
- iii) Ability to handle more open-ended tasks

**iv) Both i) and iii)**

4) In a one-shot prompt for a customer service chatbot, which of the following would be the most appropriate example to provide?

**i) A sample customer inquiry and desired response**

- ii) A technical description of the chatbot's functionality
- iii) A list of frequently asked questions and answers
- iv) A set of rules for the chatbot's behaviour

5) Which of the following is a potential application of prompt engineering for information retrieval?

- i) Generating relevant search queries based on user input
- ii) Ranking and filtering search results based on relevance
- iii) Summarizing the key information from retrieved documents

**iv) All of the above**

6) In an information retrieval system for academic research, which of the following prompts would be most effective for finding relevant literature?

- i) A prompt that describes the research topic and desired focus areas
- ii) A prompt that specifies the publication types (e.g., journals, conferences) and date ranges
- iii) A prompt that includes keywords and relevant terminology

**iv) A combination of i), ii), and iii)**

7) Which of the following prompts would be most suitable for generating creative writing content?

- i) A prompt that provides a specific plot outline or character descriptions
- ii) A prompt that specifies the desired writing style, tone, and genre
- iii) A prompt that includes writing prompts or story starter ideas

**iv) All of the above could be effective depending on the desired output**

8) In a creative writing assistant for generating short stories, which of the following constraints would be important to consider?

- i) Ensuring coherent and engaging narratives
- ii) Maintaining consistent characterization and world-building
- iii) Adhering to specific genre conventions or themes

**iv) All of the above**

9) Which of the following tasks would benefit from content expansion using prompt engineering?

- i) Generating detailed descriptions or explanations from brief summaries
- ii) Expanding outlines or bullet points into full-fledged articles or reports
- iii) Enhancing existing content with additional context or perspectives

**iv) All of the above**

10) In a content expansion task for an educational platform, which of the following prompts would be most effective?

- i) A prompt that provides the core topic or concept to be expanded
- ii) A prompt that specifies the target audience or reading level
- iii) A prompt that includes relevant examples or analogies

**iv) A combination of i), ii), and iii)**

**Subjective Questions:**

1. Discuss the potential challenges and limitations of zero-shot prompting in prompt engineering. How can these challenges be mitigated or addressed?
2. Explain the concept of one-shot prompting and its advantages over zero-shot prompting. Provide an example of a scenario where one-shot prompting would be particularly useful.
3. In the context of information retrieval, describe how prompt engineering can be used to improve the relevance and accuracy of search results. What factors would you consider when designing prompts for this application?
4. Describe the role of prompt engineering in creative writing applications. How can prompts be designed to encourage creativity, engage the reader, and maintain coherence in the generated content?
5. Discuss the importance of content expansion and summarization in various domains, such as education, journalism, or scientific communication. How can prompt engineering techniques be leveraged to enhance these tasks?
6. Explain the concept of template filling and its applications in prompt engineering. What are the potential challenges and considerations when designing prompts for template filling tasks?
7. Discuss the role of prompt reframing in overcoming limitations or addressing shortcomings in existing prompts. Provide an example of a scenario where prompt reframing would be beneficial.
8. Describe the potential benefits and challenges of combining multiple prompts in prompt engineering. How can prompt combination be effectively implemented to handle complex or multi-step tasks?
9. Explain the concept of chain-of-thought prompting and its advantages in terms of transparency, interpretability, and logical reasoning. Provide an example of a task or application where chain-of-thought prompting would be particularly useful.
10. Discuss the importance of iterative prompting in tasks that require multiple rounds of refinement or feedback. How can prompt engineers effectively incorporate user feedback and iteratively improve prompts?

11. Describe the potential applications of prompt engineering in interactive storytelling and role-playing. What are the key considerations and challenges in designing prompts for generating engaging narratives and character interactions?
12. Explain the concept of implicit information injection in prompt engineering. How can this technique be used to leverage external knowledge or context, and what are the potential benefits and trade-offs?
13. Discuss the challenges and considerations involved in language translation using prompt engineering, particularly in capturing contextual nuances and cultural references. How can prompts be designed to address these challenges effectively?
14. Explain the concept of automatic prompt engineering and its potential advantages in terms of efficiency, scalability, and adaptability. What are the key factors that should be considered when developing automatic prompt engineering systems?
15. Discuss the ethical considerations and potential risks associated with the use of prompt engineering in various applications. How can prompt engineers ensure that their prompts and generated outputs are aligned with ethical principles and mitigate potential biases or harmful content?