✅ MCQs on Prompt Engineering

**1. What is Prompt Engineering?**

A) Training large AI models  
B) Crafting queries to guide AI for desired outputs  
C) Building neural networks  
D) Writing datasets for machine learning

**Answer:** B  
**Explanation:** Prompt engineering is about designing effective inputs (prompts) to influence AI model outputs.

**2. Which of the following is a Zero-shot prompt?**

A) "Translate ‘Hello’ into Spanish."  
B) "Here are 3 examples of translations…"  
C) "Tell me a story like Shakespeare."  
D) "Explain step-by-step reasoning."

**Answer:** A  
**Explanation:** Zero-shot means no examples are provided, just instructions.

**3. In Few-shot prompting, the prompt includes:**

A) No instructions  
B) A large dataset  
C) A few examples to guide the model  
D) Only a question without clarity

**Answer:** C  
**Explanation:** Few-shot prompting improves accuracy by showing the model sample inputs and outputs.

**4. Which technique helps AI explain step-by-step reasoning?**

A) Zero-shot prompting  
B) Chain-of-Thought prompting  
C) Instruction-only prompting  
D) Context omission

**Answer:** B  
**Explanation:** Chain-of-Thought (CoT) prompting makes the model reveal intermediate reasoning steps.

**5. Which is the most important rule of writing a good prompt?**

A) Use technical jargon  
B) Keep prompts vague  
C) Be clear, specific, and structured  
D) Avoid giving context

**Answer:** C  
**Explanation:** A clear and structured prompt gives the best chance for accurate AI responses.

**6. Which of the following is a bad prompt?**

A) "List 3 reasons why water is important."  
B) "Tell me something."  
C) "Summarize this in 2 sentences."  
D) "Translate ‘Good Night’ into French."

**Answer:** B  
**Explanation:** "Tell me something" is vague and does not guide the model properly.

**7. What does role prompting mean?**

A) Assigning the model a specific role or persona  
B) Asking the model to roleplay  
C) Training the AI with roles  
D) Writing prompts in multiple roles

**Answer:** A  
**Explanation:** Role prompting instructs the AI to respond in a particular style (e.g., teacher, doctor, child-friendly).

**8. Which is an example of role prompting?**

A) "Act as a travel guide and suggest 5 places in Paris."  
B) "Translate English to Spanish."  
C) "Write a list of fruits."  
D) "Tell me a story."

**Answer:** A  
**Explanation:** Assigning "travel guide" gives the AI a role for context.

**9. What is the goal of prompt engineering?**

A) To train models faster  
B) To influence model outputs effectively  
C) To reduce GPU cost  
D) To write datasets

**Answer:** B  
**Explanation:** The purpose is to maximize accuracy, relevance, and utility of AI outputs.

**10. Which technique is used when breaking down a big problem into smaller prompts?**

A) Few-shot prompting  
B) Decomposition prompting  
C) Chain-of-Thought  
D) Zero-shot

**Answer:** B  
**Explanation:** Decomposition prompting divides complex tasks into smaller subtasks.

**11. What happens if a prompt is too vague?**

A) AI responds with perfect accuracy  
B) AI ignores the request  
C) AI gives random or generic answers  
D) AI shuts down

**Answer:** C  
**Explanation:** Vague prompts cause irrelevant or generalized outputs.

**12. Which of these is an example of structured prompting?**

A) "Tell me about AI."  
B) "Summarize the following text into 3 bullet points, each less than 10 words."  
C) "Give me some information."  
D) "Do something cool."

**Answer:** B  
**Explanation:** Structured prompts clearly define the format and constraints of the output.

**13. What is a key advantage of few-shot prompting?**

A) Reduces need for model training  
B) Increases prompt vagueness  
C) Removes need for AI reasoning  
D) Provides sample patterns for better output

**Answer:** D  
**Explanation:** Few-shot prompting shows patterns/examples to guide responses.

**14. In Chain-of-Thought prompting, why does accuracy often improve?**

A) Model guesses faster  
B) Model hides reasoning  
C) Model explains step-by-step logic  
D) Model ignores context

**Answer:** C  
**Explanation:** Breaking reasoning into steps helps the model solve logically.

**15. What is an advanced prompting method used to reduce hallucinations?**

A) Prompt chaining  
B) Random prompting  
C) Vague prompting  
D) Prompt skipping

**Answer:** A  
**Explanation:** Prompt chaining connects multiple prompts in sequence, reducing errors and hallucinations.

**16. Which prompt would likely cause hallucination?**

A) "Summarize this legal article."  
B) "Invent a new historical event in 1800s."  
C) "List top 5 programming languages."  
D) "Translate into French."

**Answer:** B  
**Explanation:** Asking AI to "invent" history may lead to fabricated (hallucinated) content.

**17. Which of the following BEST describes prompt chaining?**

A) Asking unrelated questions in a chain  
B) Using outputs of one prompt as input to another  
C) Giving multiple answers at once  
D) Writing very long prompts

**Answer:** B  
**Explanation:** Prompt chaining sequences prompts to build on each other for complex tasks.

**18. Why is context important in prompts?**

A) Reduces GPU usage  
B) Helps AI understand background and requirements  
C) Makes prompts shorter  
D) Eliminates training needs

**Answer:** B  
**Explanation:** Context ensures that AI tailors responses based on the situation.

**19. Which of these is an example of instruction tuning in prompting?**

A) "Write a poem."  
B) "Translate English to French."  
C) "Summarize this in 2 lines, using simple words."  
D) "Tell me something."

**Answer:** C  
**Explanation:** Instruction tuning involves giving detailed instructions with constraints.

**20. What is the biggest challenge in prompt engineering?**

A) High GPU cost  
B) Model memorization  
C) Getting consistent, accurate, and unbiased responses  
D) Lack of internet connection

**Answer:** C  
**Explanation:** The challenge is designing prompts that consistently give accurate and fair outputs.