1.  **Question:** Prompt engineering is generally the most complex way to improve an LLM's performance for specific tasks.

**Answer:** False


2.  **Question:** Fine-tuning LLMs is most effective for adapting to new or rapidly changing data.

**Answer:** False


3.  **Question:** Implementing a RAG system is less intricate than basic prompting, as it involves fewer additional components.

**Answer:** False


4.  **Question:** In RAG systems, achieving accurate embedding retrieval is not critical, as the generator component can compensate for inaccuracies.

**Answer:** False


5.  **Question:** Fine-tuning and RAG are mutually exclusive techniques, and cannot be implemented together.

**Answer:** False


6.  **Question:** Query construction in RAG involves converting user queries into a format incompatible with various data sources.

**Answer:** False


7.  **Question:** Query expansion enhances the original query by removing related terms or synonyms to narrow the search scope.

**Answer:** False

8. **Question:** Query transformations always involve adding context to the original query, and never altering its structure.

**Answer:** False

9. **Question:** A Chat Engine is suitable for a single, isolated query, as it does not require a series of interactions.

**Answer:** False

10. **Question:** In a streaming query engine, the end user must wait for the entire response to be generated before seeing any output.

**Answer:** False

11. **Question:** Sub Question Query Engines improve performance by deactivating the streaming flag.

**Answer:** True

12. **Question:** LlamaIndex supports the composition of many queries, each responding to a portion of the query, and does not attempt to locate their answers separately.

**Answer:** False

13. **Question:** An excessively vague prompt lacking sufficient context or guidance improves the model's ability to generate a meaningful response.

**Answer:** False

14. **Question:** Integrating multiple tasks in one prompt improves the model's effectiveness in each task.

**Answer:** False

15. **Question:** Precise Directions is not a characteristic of what makes a good prompt.

**Answer:** False

16. **Question:** Few-shot prompting always leverages entirely new tasks, where the model generates outputs without examples.

**Answer:** False

17. **Question:** Role prompting involves instructing the LLM to assume a specific role or identity for task execution.
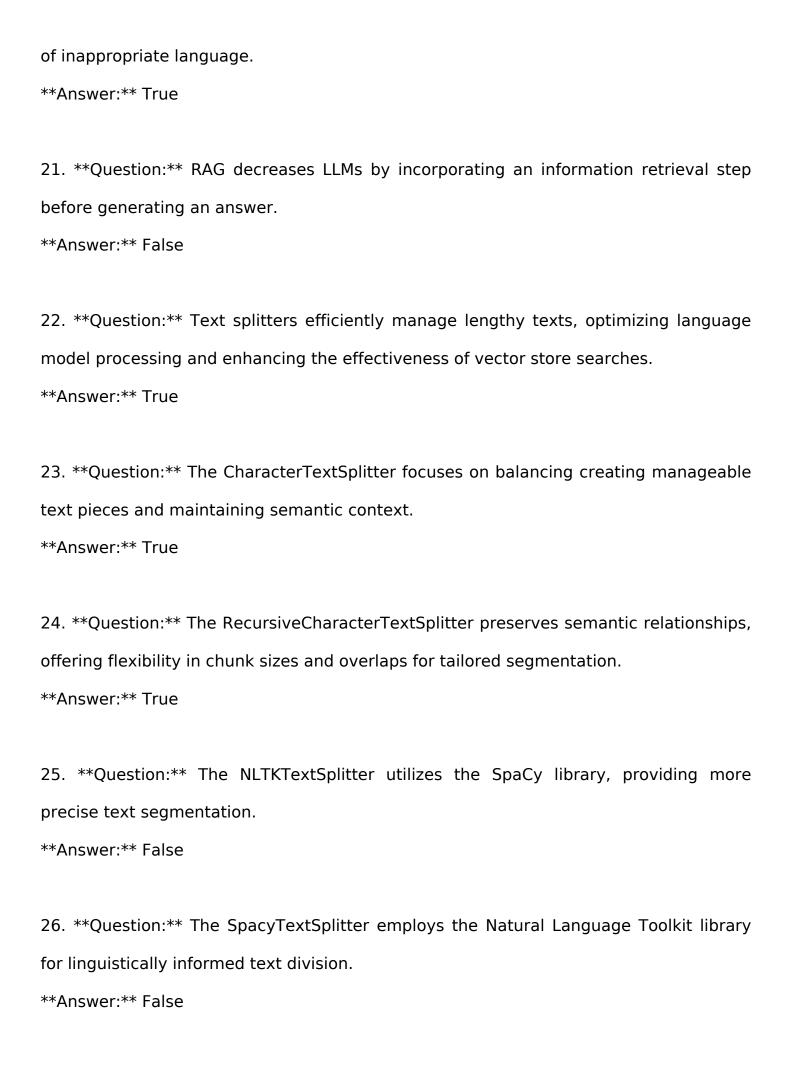
**Answer:** True

18. **Question:** In chain prompting, the output from one prompt serves as the input for the next.
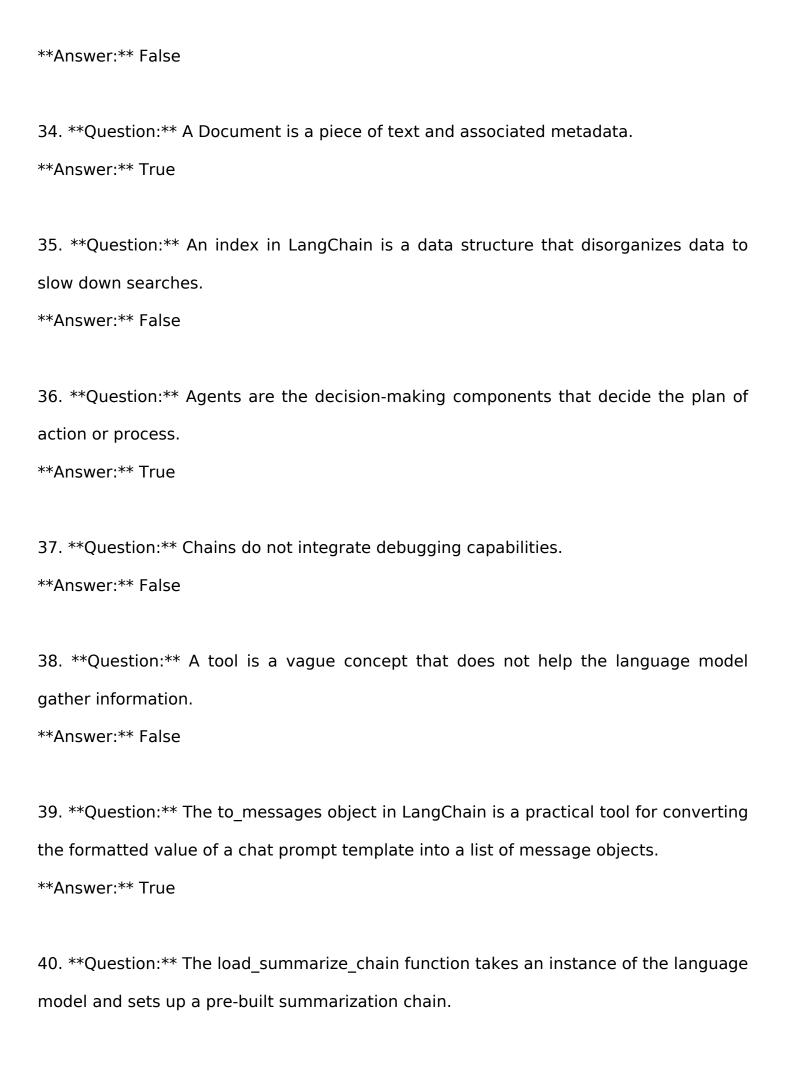
**Answer:** True

19. **Question:** Chain of Thought Prompting is effective primarily with models with around 10 billion parameters or less.

**Answer:** False

20. **Question:** ConstitutionalChain can protect brand images by preventing the use

of inappropriate language.

**Answer:** True

21. **Question:** RAG decreases LLMs by incorporating an information retrieval step before generating an answer.

**Answer:** False

22. **Question:** Text splitters efficiently manage lengthy texts, optimizing language model processing and enhancing the effectiveness of vector store searches.

**Answer:** True

23. **Question:** The CharacterTextSplitter focuses on balancing creating manageable text pieces and maintaining semantic context.

**Answer:** True

24. **Question:** The RecursiveCharacterTextSplitter preserves semantic relationships, offering flexibility in chunk sizes and overlaps for tailored segmentation.

**Answer:** True

25. **Question:** The NLTKTextSplitter utilizes the SpaCy library, providing more precise text segmentation.

**Answer:** False

26. **Question:** The SpacyTextSplitter employs the Natural Language Toolkit library for linguistically informed text division.

**Answer:** False

27. **Question:** The MarkdownTextSplitter is designed for Excel-formatted content.

**Answer:** False

28. **Question:** The TokenTextSplitter uses BPE tokens for text division, offering a detailed approach to segmenting text.

**Answer:** True

29. **Question:** The Constitutional Principle class accepts four parameters: Name, Critique, Revision, and Expense.

**Answer:** False

30. **Question:** Prompt engineering is a critical method that enhances the performance of language models across different applications and research areas.

**Answer:** True

31. **Question:** Zero-shot prompting is effective when the model is asked to output with prior examples.

**Answer:** False

32. **Question:** Prompting is inherently a process of refinement, often requiring multiple iterations to achieve the best results.

**Answer:** True

33. **Question:** Langchain is a closed source framework designed to complicate the deployment of LLMs.

**Answer:** False

34. **Question:** A Document is a piece of text and associated metadata.

**Answer:** True

35. **Question:** An index in LangChain is a data structure that disorganizes data to slow down searches.

**Answer:** False

36. **Question:** Agents are the decision-making components that decide the plan of action or process.

**Answer:** True

37. **Question:** Chains do not integrate debugging capabilities.

**Answer:** False

38. **Question:** A tool is a vague concept that does not help the language model gather information.

**Answer:** False

39. **Question:** The to_messages object in LangChain is a practical tool for converting the formatted value of a chat prompt template into a list of message objects.

**Answer:** True

40. **Question:** The load_summarize_chain function takes an instance of the language model and sets up a pre-built summarization chain.

**Answer:** True

41. **Question:** OpenAI's Assistants API requires developers to create AI assistants in a more complicated manner.

**Answer:** False

42. **Question:** The ChatPromptTemplate is used for structuring conversations with AI models, aiding in controlling the conversation's flow and content.

**Answer:** True

43. **Question:** The HumanMessagePromptTemplate provides initial instructions, context, or data for the AI model.

**Answer:** False

44. **Question:** The SystemMessagePromptTemplate consists of user messages that the AI model answers.

**Answer:** False

45. **Question:** The goal of few-shot learning is to develop a function that assesses the differences between classes in the examples and query sets.

**Answer:** False

46. **Question:** Large Language Models never produce outputs inconsistent with facts or the available inputs.

**Answer:** False

47. **Question:** Bias in LLMs can also result in outcomes that favor particular perspectives over others.

**Answer:** True


48. **Question:** Hallucinations might be advantageous in creative fields such as fiction writing.

**Answer:** True


49. **Question:** Embeddings capture the essence of data, be it words, images, or anything else, depending on how the embedding model is made.

**Answer:** True


50. **Question:** Vector stores inefficiently store, find, and study large amounts of complex data.

**Answer:** False ?