

## **Long Questions**

- 1. How do semantic parsing systems handle word sense ambiguity?
- 2. How do semantic parsing systems incorporate domain-specific knowledge?
- 3. What are the challenges of semantic parsing in multilingual settings?
- 4. How do semantic parsing systems handle semantic compositionality?
- 5. How do semantic parsing systems incorporate contextual information?
- 6. How do semantic parsing systems incorporate syntactic and semantic constraints?
- 7. What are the key components of a semantic parsing framework?
- 8. How do machine learning approaches improve semantic parsing?
- 9. What are the limitations of current semantic parsing systems?
- 10. How do semantic parsing systems address syntactic ambiguity?
- 11. What role does syntax play in semantic parsing?
- 12. What are the challenges of multilingual semantic parsing?
- 13. What role do evaluation metrics play in assessing semantic parsing systems?
- 14. How do semantic parsing systems handle cross-lingual ambiguity?
- 15. How do semantic parsing systems handle semantic ambiguity?
- 16. What is the role of predicate-argument structure in semantic parsing?
- 17. What are some common meaning representation systems used in semantic parsing?
- 18. How does Abstract Meaning Representation (AMR) represent sentence meaning?
- 19. What are the advantages of using Predicate-Argument Structures (PAS) in semantic parsing?
- 20. How does Minimal Recursion Semantics (MRS) represent sentence meaning?
- 21. How does Frame Net represent the meanings of words and phrases?
- 22. What role does Combinatory Categorial Grammar (CCG) play in semantic parsing?



- 23. How do semantic parsing systems leverage Knowledge Graphs?
- 24. What are some challenges in representing sentence meaning using Abstract Meaning Representation (AMR)?
- 25. How do Semantic Role Labelling (SRL) techniques contribute to semantic parsing?
- 26. How do Predicate-Argument Structures (PAS) facilitate semantic compositionality?
- 27. What are some challenges in semantic parsing using Predicate-Argument Structures (PAS)?
- 28. How do Abstract Meaning Representation (AMR) graphs support semantic interpretation?
- 29. What are some common challenges in interpreting Abstract Meaning Representation (AMR) graphs?
- 30. What role does Minimal Recursion Semantics (MRS) play in semantic interpretation?
- 31. How does Semantic Role Labelling (SRL) contribute to semantic parsing systems?
- 32. What are the key challenges in Semantic Role Labelling (SRL)?
- 33. How does Frame Semantics contribute to semantic parsing and interpretation?
- 34. What challenges do semantic parsing systems face in handling Frame Semantics?
- 35. How do distributional semantics techniques contribute to semantic parsing?
- 36. What are the main challenges in using distributional semantics for semantic parsing?
- 37. How do deep learning approaches contribute to semantic parsing?
- 38. What challenges do deep learning approaches face in semantic parsing?
- 39. How do hybrid approaches combine different techniques for semantic parsing?
- 40. What are some challenges in developing hybrid approaches for semantic parsing?
- 41. How does multilingual semantic parsing contribute to cross-lingual natural language understanding?



- 42. What are some challenges in developing multilingual semantic parsing systems?
- 43. How does semantic parsing contribute to multilingual machine translation systems?
- 44. What are some challenges in integrating semantic parsing into multilingual machine translation systems?
- 45. How can semantic parsing contribute to multilingual answering systems?
- 46. What is language modelling, and why is it important in natural language processing?
- 47. What is N-gram models, and how do they contribute to language modelling?
- 48. How do we evaluate language models, and what are some commonly used evaluation metrics?
- 49. What is Bayesian parameter estimation, and how is it applied in language modelling?
- 50: What is language model adaptation, and why is it important in real-world applications?
- 51. What are class-based language models, and how do they differ from traditional language models?
- 52. What is variable length language modelling, and how does it address the limitations of fixed-length models?
- 53. What is Bayesian topic-based language modelling, and how does it incorporate topic information into the modelling process?
- 54. How do multilingual and cross-lingual language models address the challenges of language diversity and resource scarcity in NLP?
- 55. What are some current trends and future directions in language modelling research?
- 56. What are some common challenges faced in language modelling, and how are researchers addressing them?
- 57. How does Bayesian parameter estimation differ from traditional maximum likelihood estimation in language modelling?
- 58. How do language models adapt to handle domain-specific vocabulary and linguistic nuances?



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- 60. What are some challenges in evaluating language models for low-resource languages, and how can researchers address them?
- 61. How do variable-length language models address the limitations of fixed-length models in capturing long-range dependencies and context in language modelling?
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