🐍 Python / Agentic AI Exam – Context (Basic)

100 Questions & Answers

Definition & Basics

1.

Q: What is Context in Agentic AI?
A: Information (history, memory, metadata) that helps an Agent make better decisions.

2.

Q: True or False: Context is optional for Agents.
A: True – but without it, reasoning is limited.

3.

Q: What does Context provide?
A: Background knowledge, conversation history, and task-specific details.

4.

Q: Example of Context in a chatbot?
A: Remembering the user’s last question.

5.

Q: Example of Context in a trading Agent?
A: Market data from previous ticks.

6.

Q: Who provides Context to an Agent?
A: Runner, memory, or external input.

7.

Q: What happens if Context is missing?
A: The Agent may give irrelevant or incomplete responses.

8.

Q: Is Context static or dynamic?
A: Dynamic – it updates during conversation.

9.

Q: Can Context be shared across multiple Agents?
A: Yes, through handoff.

10.

Q: What is the maximum Context an Agent can handle?
A: Limited by the model’s context window.

Types of Context

11.

Q: What is short-term Context?
A: The immediate conversation/session history.

12.

Q: What is long-term Context?
A: Stored memory across sessions.

13.

Q: Example of short-term Context?
A: The last 10 messages in a chat.

14.

Q: Example of long-term Context?

A: Remembering a user’s preferences over weeks.

15.

Q: Which type of Context resets when session ends?
A: Short-term.

16.

Q: Which type of Context persists beyond sessions?
A: Long-term.

17.

Q: Which Context type is memory-heavy?
A: Long-term.

18.

Q: Which Context is model-limited (token size)?
A: Short-term.

19.

Q: Can both Context types be combined?
A: Yes.

20.

Q: Which type of Context is required for personalization?
A: Long-term.

Context Window

21.

Q: What is a Context window?
A: The maximum number of tokens a model can “remember” at once.

22.

Q: What happens if input exceeds the Context window?
A: Older data is truncated.

23.

Q: Example: If window = 4k tokens, what is max input+output length?
A: 4,000 tokens combined.

24.

Q: Can Context windows vary by model?
A: Yes.

25.

Q: Which models have largest Context windows?
A: LLMs like GPT-4 Turbo (128k tokens).

26.

Q: What is truncation in Context?
A: Cutting older data to fit in window.

27.

Q: What is sliding window Context?
A: Rolling recent messages into active memory.

28.

Q: What is selective Context?
A: Choosing only relevant data for reasoning.

29.

Q: Which config controls Context window use?
A: truncation_policy.

30.

Q: Can Context be compressed?
A: Yes, using summarization.

Context Filters

31.

Q: What is a Context filter?
A: A rule to remove or clean sensitive/unnecessary info.

32.

Q: Example of sensitive info removed by Context filter?
A: Passwords or personal data.

33.

Q: Which config controls filtering?
A: input_filter or context_filter.

34.

Q: Can Context filters improve safety?
A: Yes.

35.

Q: Can Context filters be custom?
A: Yes, developer-defined.

36.

Q: What happens if Context filter too strict?
A: Important data may be lost.

37.

Q: What happens if Context filter too loose?
A: Sensitive data may leak.

38.

Q: Which config ensures compliance policies in Context?
A: policy_enforcer.

39.

Q: True or False: Context filters only apply to input.
A: False – can apply to input and output.

40.

Q: Example: Redacting credit card info is what?
A: Context filtering.

Context in Reasoning

41.

Q: Why does an Agent need Context for reasoning?
A: To connect current input with history.

42.

Q: Example: “What about yesterday’s price?” requires what?
A: Context of yesterday’s data.

43.

Q: Without Context, “Tell me more” is…?
A: Ambiguous.

44.

Q: Which helps disambiguate user queries?
A: Context.

45.

Q: Context improves reasoning by?
A: Providing history + grounding.

46.

Q: What happens if Context is irrelevant?
A: Poor or misleading answers.

47.

Q: What happens if Context is noisy?
A: Model confusion.

48.

Q: What is Context prioritization?
A: Selecting the most relevant info.

49.

Q: Which config sets priority?
A: context_priority.

50.

Q: Can Context improve multi-step reasoning?
A: Yes.

Context & Tools

51.

Q: Do Tools depend on Context?
A: Yes – Agents decide tool use based on Context.

52.

Q: Example: Using “search” tool only if query is incomplete uses?
A: Context.

53.

Q: Can Context help avoid unnecessary Tool calls?
A: Yes.

54.

Q: Can Context refine Tool inputs?
A: Yes.

55.

Q: Can Context influence which Tool is selected?
A: Yes.

56.

Q: Can Context be passed to Tools directly?
A: Yes, via input_filter.

57.

Q: What if Context is missing for Tool call?
A: Tool may give wrong or partial result.

58.

Q: Can Context be used after Tool returns output?
A: Yes – for reasoning.

59.

Q: Can multiple Tools share same Context?
A: Yes.

60.

Q: Example: Travel Agent using city info from Context for flight API?
A: Context-based Tool use.

Context Management

61.

Q: Which config keeps conversation history?
A: keep_history.

62.

Q: If keep_history = False, what happens?
A: Context reset after each turn.

63.

Q: Which config manages Context size?
A: truncation_policy.

64.

Q: Which config stores Context externally?
A: memory_enabled.

65.

Q: Which Context management style saves tokens?
A: Summarized memory.

66.

Q: Which style saves accuracy?
A: Full memory.

67.

Q: What is memory compression?
A: Summarizing older Context.

68.

Q: Can Context be multi-modal (text+images)?
A: Yes.

69.

Q: Can Context include structured data (JSON)?
A: Yes.

70.

Q: Example: Passing “user location” as Context is it valid?
A: Yes.

Context Failures

71.

Q: What is Context drift?
A: When Agent relies on outdated/irrelevant Context.

72.

Q: What is Context loss?
A: Important data removed due to truncation.

73.

Q: What is Context overload?
A: Too much irrelevant data.

74.

Q: Which causes hallucinations: lack of Context or too much noise?
A: Both.

75.

Q: What prevents Context drift?
A: Context filters + prioritization.

76.

Q: What prevents overload?
A: Summarization.

77.

Q: What prevents loss?
A: External memory.

78.

Q: Can Context errors propagate across Agents?
A: Yes.

79.

Q: Can Context be maliciously poisoned?
A: Yes, via prompt injection.

80.

Q: How to defend against Context poisoning?
A: Guardrails + validation.

Practical Scenarios

81.

Q: Chatbot remembering your name is using?
A: Context.

82.

Q: Trading Agent storing last 5 trades is?
A: Short-term Context.

83.

Q: Learning Agent storing user progress is?
A: Long-term Context.

84.

Q: Research Agent summarizing documents is?
A: Context compression.

85.

Q: Customer support Agent recalling ticket history is?
A: Long-term Context.

86.

Q: Translation Agent using earlier sentence for meaning is?
A: Context use.

87.

Q: Music recommendation Agent storing likes is?
A: Long-term Context.

88.

Q: Navigation Agent using previous location is?
A: Context.

89.

Q: Exam prep Agent remembering old questions is?
A: Context memory.

90.

Q: Healthcare Agent using past medical record is?
A: Context.

Summary & Edge Cases

91.

Q: Can Context be empty?
A: Yes.

92.

Q: Can Context be reset?
A: Yes.

93.

Q: Can Context be shared between sessions?
A: Yes, if long-term memory enabled.

94.

Q: What’s the biggest limitation of Context?
A: Token limit.

95.

Q: What’s the biggest advantage of Context?
A: Coherence + personalization.

96.

Q: Who controls Context size?
A: Model + Runner config.

97.

Q: Who validates Context before Agent sees it?
A: Context filters.

98.

Q: Can Context be manipulated?
A: Yes, by prompts or malicious input.

99.

Q: Which config ensures Context is safe?
A: context_filter + guardrails.

100.

Q: What is the ultimate role of Context in Agents?
A: To ground reasoning, maintain coherence, and personalize outputs.