📘 MCQs: General Concepts & Defaults – Fundamentals of Agentic AI

**1. What does “Agentic AI” primarily refer to?**

A) AI models used only for image generation  
B) AI systems that act autonomously using reasoning and tools  
C) A static chatbot with predefined answers  
D) AI trained only on personal data

**Answer:** B  
**Explanation:** Agentic AI refers to **autonomous AI systems** capable of reasoning, decision-making, and using external tools/resources.

**2. In Agentic AI, what is a default behavior of an agent without special instructions?**

A) Generate free-form text responses  
B) Always call external tools  
C) Refuse all user input  
D) Output only JSON

**Answer:** A  
**Explanation:** By default, agents produce **free-form text outputs**, unless structured schemas or tool calls are enforced.

**3. Which of the following is a core concept in Agentic AI?**

A) Token compression  
B) Schema-driven validation  
C) Local GPU training  
D) HTML rendering

**Answer:** B  
**Explanation:** A fundamental concept is that agents use **schemas for validation** to ensure safe and reliable outputs.

**4. What is the default output type for most AI models when not specified?**

A) JSON object  
B) Plain text string  
C) List of tokens  
D) YAML

**Answer:** B  
**Explanation:** Unless explicitly set, the default output is **plain text**.

**5. What role do system messages play in Agentic AI?**

A) They provide background styling  
B) They guide default behavior and safety instructions  
C) They disable validation  
D) They are ignored during execution

**Answer:** B  
**Explanation:** **System messages** define **defaults for behavior, tone, and safety** of the agent.

**6. Which default is typically applied when no tool is configured for an agent?**

A) Use local Python functions  
B) Free-text reasoning and output only  
C) Error response  
D) Auto-summaries

**Answer:** B  
**Explanation:** Without tools, agents default to **reasoning and free-text output**.

**7. What does “default schema” mean in Agentic AI?**

A) The JSON schema generated automatically if no explicit schema is provided  
B) A fixed schema used in every agent  
C) A schema only for databases  
D) A template for HTML rendering

**Answer:** A  
**Explanation:** Agents generate an **implicit default schema** if none is defined.

**8. In Agentic AI, what is a default safety layer?**

A) Guardrails that prevent unsafe completions  
B) GPU usage restrictions  
C) Token compression  
D) Internet blocking

**Answer:** A  
**Explanation:** Default **safety guardrails** are included to prevent agents from generating harmful outputs.

**9. Why are defaults important in Agentic AI development?**

A) They reduce customization  
B) They ensure safe fallback behaviors when developers don’t specify settings  
C) They always improve performance  
D) They remove schema enforcement

**Answer:** B  
**Explanation:** Defaults act as **safety nets**, ensuring agents work safely without full configuration.

**10. Which of the following is a general concept in Agentic AI?**

A) Multi-turn reasoning  
B) GPU memory allocation  
C) Docker containerization  
D) Static code analysis

**Answer:** A  
**Explanation:** Multi-turn reasoning is central to **how agents think step-by-step**.

**11. What is the default reasoning style of most LLM-based agents?**

A) Parallel reasoning  
B) Sequential step-by-step reasoning  
C) Binary decision-making  
D) Randomized sampling

**Answer:** B  
**Explanation:** Agents default to **stepwise sequential reasoning** (like Chain-of-Thought).

**12. If an agent has no explicit memory system, what is the default?**

A) It forgets previous inputs  
B) It always stores everything in a database  
C) It never responds  
D) It generates embeddings automatically

**Answer:** A  
**Explanation:** Without explicit **context memory**, agents only use the **current prompt**.

**13. Which default temperature setting is common in many LLMs?**

A) 0.0  
B) 0.5–1.0  
C) 2.0  
D) None

**Answer:** B  
**Explanation:** A **balanced default** temperature around 0.7 is common, giving both creativity and reliability.

**14. What is the default role of an agent in multi-agent systems?**

A) Leader agent  
B) Worker agent (task execution)  
C) Critic agent  
D) User simulator

**Answer:** B  
**Explanation:** Agents usually default to **task-execution roles** unless otherwise designed.

**15. Why are default structured outputs useful in Fundamentals of Agentic AI?**

A) They speed up GPU training  
B) They allow agents to interface safely with APIs and tools  
C) They disable validation  
D) They prevent text generation

**Answer:** B  
**Explanation:** Defaults for **structured output** make agents safer and API-friendly.

**16. What is a general concept behind agent “defaults”?**

A) Fail-safe configurations for behavior  
B) Hardcoded instructions for every task  
C) Ignoring system messages  
D) Training datasets only

**Answer:** A  
**Explanation:** Defaults ensure **safe fallback behaviors** when no specific configuration is given.

**17. By default, how do agents handle unknown inputs?**

A) They reject everything  
B) They attempt reasoning and respond in free-text  
C) They stop execution  
D) They return JSON only

**Answer:** B  
**Explanation:** Agents default to **reasoning-based responses** when input is ambiguous.

**18. In Fundamentals of Agentic AI, what is a default assumption about agent outputs?**

A) They must be safe and aligned with instructions  
B) They can contain any raw data  
C) They always call tools  
D) They are always numerical

**Answer:** A  
**Explanation:** Defaults assume agents **follow alignment and safety first**.

**19. What is the default error handling in many agent systems?**

A) Stop execution and log error  
B) Return structured error messages or fallback outputs  
C) Ignore error and continue silently  
D) Restart training

**Answer:** B  
**Explanation:** Default handling often provides **safe fallback outputs** instead of crashing.

**20. Best practice with defaults in Agentic AI is to:**

A) Ignore them and always write custom settings  
B) Understand defaults and override only when necessary  
C) Disable safety defaults for speed  
D) Remove schema defaults

**Answer:** B  
**Explanation:** Developers should **leverage defaults** but customize them only when needed for reliability and safety.