

# AI Fundamentals Level 1 Quiz

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<b>Started on</b>	Monday, April 15, 2024, 1:35 PM
<b>State</b>	Finished
<b>Completed on</b>	Monday, April 15, 2024, 2:47 PM
<b>Time taken</b>	1 hour 12 mins
<b>Feedback</b>	<b>Congratulations, you passed this quiz!</b>

## Question 1

Incorrect

Points out of 1.00

Artificial intelligence (AI) is the field focused on building smart machines that can perform tasks that normally require human intelligence. What subfield of artificial intelligence uses a broad set of techniques to train a computer to learn from its inputs, using existing data, and one or more “training” methods, instead of programming it?

- ☐ Reinforcement learning
- ☒ Rules-based systems ❌
- ☐ Machine learning / Deep learning
- ☐ Generative AI

Question **2**

Incorrect

Points out of 1.00

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ChatGPT popularized a new method of instructing AI-based systems to generate output. This involves people issuing instructions to the AI system that describes characteristics of the output that they're asking to be generated. What is this new method of providing input to foundation models called?

- ☒ Natural language processing ❌
- ☐ Supervised learning
- ☐ Request-driven computing
- ☐ Prompt engineering

Question **3**

Correct

Points out of 1.00

Modern AI systems use machine learning and natural language processing to talk to users as they would talk to a human agent and natural language understanding to discern the user's need. These tools make it easy for users to find the information they need by responding to their questions and requests through text or audio input without the need for human intervention. What is this type of technology called that uses this conversational AI.

- ☐ Aides
- ☐ Personal assistants
- ☐ Intercom bots
- ☒ Chatbots ✔️

## Question 4

Correct

Points out of 1.00

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AI comprises a group of technologies that are not only key for businesses to complete a successful digital transformation, but also necessary to address sustainability. AI is being used to design smart buildings and factories with sustainability built into the design and operational insights can be derived from AI models that help drive clean energy transitions. ESG concerns have reached prominence in corporations. What does ESG stand for?

- ☐ Energy, security, and governments
- ☒ Environmental, social, and governance ✓
- ☐ Environmental, security, and governance
- ☐ Environmental, security, and governments

## Question 5

Incorrect

Points out of 1.00

London-based, BT Global provides global security, cloud, and networking services to multinational companies worldwide. They worked with IBM to address the inability to get a unified, real-time view into what was happening across the whole network, without the need to use different tools or portals. What IBM software, which uses machine learning, allows BT Global to monitor over 5.5 million objects, or performance parameters, in real time?

- ☐ IBM SevOne Network Performance Management (NPM)
- ☒ IBM Watson Orchestrate ✗
- ☐ IBM Instana
- ☐ IBM Turbonomic

Question **6**

Correct

Points out of 1.00

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Artificial intelligence (AI) is by no means a new concept. The birth of the AI conversation was denoted in 1950 in the paper "Computing Machinery and Intelligence," which asked the following question — "Can machines think?" The author of the paper offered a test that challenges a human interrogator to try and distinguish an interaction between a computer and human in a text response. Who was the author of this paper, often referred to as the "father of computer science?"

- ☒ Alan Turing ✓
- ☐ Thomas J Watson
- ☐ John McCarthy
- ☐ Frank Rosenblatt

Question **7**

Correct

Points out of 1.00

Foundation models can be instructed to solve various natural language processing tasks through a process called prompt engineering. Prompt engineering is a process of designing, creating, and testing prompts for natural language generation systems. What are three types of prompting?

- ☐ Few-shot prompting, one-shot prompting, and moon-shot prompting
- ☐ One-shot prompting, two-shot prompting, and moon-shot prompting
- ☐ Zero-shot prompting, one-shot prompting, and two-shot prompting
- ☒ Few-shot prompting, one-shot prompting, and zero-shot prompting ✓

## Question 8

Correct

Points out of 1.00

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There is a well-known phenomenon in AI models in which the system can provide an answer that is factually incorrect, irrelevant, nonsensical, or even more concerning, an incorrect answer that sounds plausible. What is this phenomenon called?

- ☐ Distortion
- ☐ Partiality
- ☐ Bias
- ☒ Hallucination ✓

## Question 9

Correct

Points out of 1.00

Apple's Siri and Amazon's Alexa are virtual assistant technologies that most people are familiar with today. These devices use speech recognition technology to process human speech into text. What is the technology that gives computers the ability to comprehend human language?

- ☐ Speech to text processing
- ☐ Text tokenization
- ☒ Natural language processing ✓
- ☐ Text generation

Question **10**

Correct

Points out of 1.00

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Traditional AI techniques involve algorithms that make either a prediction (for example, what is the likelihood this loan application will default?) or a classification (is this email likely to be spam) based on a set of inputs. There is an emerging set of AI techniques called “generative AI”. What does this refer to?

- ☒ An AI system that can generate new outputs — such as code, text, images, or audio — in response to user input ✓
- ☐ An AI system that is specially tuned to optimize the generation of electricity
- ☐ An AI system that generates deep neural networks that are optimized to find patterns in images
- ☐ An AI system used in cryptography that generates extremely large prime numbers

Question **11**

Correct

Points out of 1.00

Businesses can experience unforeseen consequences in their AI applications if their output is skewed by the model’s training data. What type of error happens when an AI model associates specific traits or professions with a certain race or gender, leading to inaccurate predictions and offensive responses?

- ☒ Bias ✓
- ☐ Distortion
- ☐ Hallucination
- ☐ Partiality

Question **12**

Correct

Points out of 1.00

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Open AI released ChatGPT, which for many people made the power of AI instantly understandable and exciting, instead of abstract. ChatGPT is an AI-driven chatbot that engages in conversational dialog. What type of AI model does ChatGPT use?

- ☐ A non-transformer-based language model (NTBL)
- ☐ A regression model
- ☒ A transformer-based large language model (LLM) ✓
- ☐ A long-short term memory (LSTM) natural language processing (NLP) model

Question **13**

Correct

Points out of 1.00

Businesses are undoubtedly feeling an immense amount of pressure to act now, or they risk falling behind AI-adopting competitors who do a better job of meeting customer expectations. But success in applying AI, whether based on the most advanced machine learning or latest foundation models for generative AI is not just measured in speed. IBM's approach to AI is based on four core and differentiating beliefs. What are these 4 core beliefs?

- ☒ Open, trusted, targeted, and empowering ✓
- ☐ Trained, secure, trusted, and empowering
- ☐ Trained, trusted, targeted, and timely
- ☐ Open, secure, trusted, and targeted

Question **14**

Correct

Points out of 1.00

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Your client wants to know more about the recent announcement of watsonx. They heard it was a new AI and data platform but they don't know much more. What is the watsonx component that clients can use to train, validate, tune, and deploy AI models?

- ☐ watsonx.governance
- ☐ watsonx.data
- ☒ watsonx.ai ✓
- ☐ watsonx.platform

Question **15**

Correct

Points out of 1.00

There are 4 types of machine learning methods. What is the training method that teaches an AI model to find the best result by trial and error, receiving rewards or punishment from an algorithm based on its results?

- ☐ Directed learning
- ☐ Unsupervised learning
- ☐ Supervised learning
- ☒ Reinforcement learning ✓