**AI Basics Post-Assessment**

Question 1

What are three characteristics of traditional AI systems? (Choose three.)

Parte superior do formulário

* They rely on symbolic representation and formal logic.
* They are highly interpretable and transparent.
* They use neural networks to learn from data.
* They require large datasets to function effectively.
* They employ predefined rules to make decisions.
* They utilize deep learning to improve over time.

Question 2

What is a primary characteristic of advanced AI systems that differentiates them from basic rule-based systems?

Parte superior do formulário

* They perform tasks based solely on pre-defined rules.
* They adapt and improve performance by learning from data.
* They do not require any form of data input.
* They are limited to simple automation tasks.

Parte inferior do formulário

Question 3

How do traditional AI systems typically derive conclusions?

Parte superior do formulário

* by using statistical analysis to predict outcomes
* through neural networks to simulate human brain function
* by applying formal rules and logic to manipulate symbols
* by clustering data into groups based on similarities
* Question 4

Parte inferior do formulário

Which three applications are most suited for deep learning models due to their ability to handle complex data? (Choose three.)

Parte superior do formulário

* image recognition in medical diagnostics
* autonomous navigation in self-driving cars
* credit scoring in financial services
* movie recommendation systems
* voice-activated virtual assistants
* real-time fraud detection

Question 5

What is the role of the inference engine in a traditional AI expert system?

Parte superior do formulário

* to provide real-time graphical representation of data
* to cluster similar data points for analysis
* to store domain-specific information and rules
* to retrieve and apply rules from the knowledge base to input data

Parte inferior do formulário

Question 6

What is a significant limitation of traditional AI systems?

Parte superior do formulário

* They cannot handle unexpected events due to their rigidity.
* They are very costly to develop and maintain.
* They require extensive human interaction for decision-making.
* They do not use logical reasoning.

Question 7

What primary feature differentiates Generative AI from traditional AI models?

Parte superior do formulário

* use of predefined rules
* ability to process structured data
* capability to generate new content by learning patterns
* reliance on explicit programming

Parte inferior do formulário

Question 8

What are three ways to mitigate bias in AI systems? (Choose three.)

Parte superior do formulário

* Add diverse and representative samples to the training dataset.
* Increase reliance on traditional AI systems.
* Implement fairness constraints during model training.
* Regularly monitor and evaluate model outputs.
* Utilize uncleaned raw data for training.

Question 9

In a Generative Adversarial Network (GAN), what role does the generator play?

Parte superior do formulário

* It evaluates the authenticity of the data.
* It provides feedback on data quality.
* It creates data to resemble real data.
* It manages the training process.

Parte inferior do formulário

Question 10

What three factors are essential for effective GenAI inference? (Choose three.)

Parte superior do formulário

* duplicate data in datasets
* specific and clear user input
* consistent output across all queries
* real-time data updating
* unified data structure
* high computational power
* large and diverse datasets

Question 11

Why is data cleanliness crucial in training generative AI models?

Parte superior do formulário

* It reduces computational costs.
* It enhances user experience.
* It ensures the quality of the output.
* It accelerates model deployment.

Parte inferior do formulário

Question 12

What impact does the size of a training dataset have on GenAI's ability to generate diverse outputs?

Parte superior do formulário

* Large datasets limit diversity.
* Small datasets enhance creativity.
* Large datasets increase diversity.
* Dataset size has no impact on diversity.

Parte inferior do formulário

Question 13

How does AI improve the efficiency of an Intrusion Prevention System (IPS)?

Parte superior do formulário

* by relying solely on predefined rules and signatures
* by increasing the number of false positives
* by learning from network traffic patterns and identifying anomalies
* by ignoring deviations in network behavior

Parte inferior do formulário

Question 14

Which tool is mentioned for performing static and dynamic code analysis to reduce risk across applications?

Parte superior do formulário

* Snyk from DeepCode AI
* Cisco Webex
* Cisco Secure Endpoint
* Cisco Meraki

Parte inferior do formulário

Question 15

What is the role of intelligent virtual assistants in collaboration?

Parte superior do formulário

* to increase the number of manual tasks
* to reduce the number of team members
* to ignore user inquiries
* to streamline workflows and manage schedules

Parte inferior do formulário

Question 16

In what three ways can AI contribute to the development of smart cities? (Choose three.)

Parte superior do formulário

* by optimizing public transportation scheduling and route planning
* by increasing manual traffic management
* by monitoring environmental factors such as air and water quality
* by improving reaction time to utility outages
* by reducing the number of IoT devices in the city
* by ignoring data from city sensors

Question 17

What is a critical task in the retraining of AI models for network automation?

Parte superior do formulário

* ignoring the dataset quality
* using outdated data for training
* avoiding model optimization
* ensuring the dataset aligns with expected model behavior

Question 18

How can AI help with proactive threat hunting?

Parte superior do formulário

* by actively scanning and analyzing a system to seek out threats before they become more damaging
* by ignoring atypical login behavior
* by increasing the number of security breaches
* by reducing the number of security protocols

Parte inferior do formulário

Question 19

Which three features of Kubernetes make it suitable for managing AI-ML clusters? (Choose three.)

Parte superior do formulário

* automatic scaling
* high-speed data processing
* container orchestration
* secret and configuration management
* data visualization
* model training

Question 20

Which stage of the custom AI model development process involves adjusting parameters such as the learning rate and batch size?

Parte superior do formulário

* hyperparameter tuning
* model planning
* model monitoring
* model deployment

Parte inferior do formulário

Question 21

Which three tools are commonly used for hyperparameter optimization in AI-ML models? (Choose three.)

Parte superior do formulário

* Optuna
* Scikit-learn
* Matplotlib
* MLflow
* NumPy
* Docker

Question 22

What are two advantages of using GPUs and TPUs in AI-ML clusters? (Choose two.)

Parte superior do formulário

* enhanced parallel processing
* improved performance for deep learning tasks
* reduced power consumption
* simplified software development
* lower cost
* increased storage capacity

Question 23

Which component of an AI-ML cluster is specifically designed to handle many simple, repetitive operations simultaneously?

Parte superior do formulário

* CPUs
* Kubernetes
* GPUs
* Docker

Parte inferior do formulário

Question 24

Which three factors contribute to the scalability of AI-ML clusters? (Choose three.)

Parte superior do formulário

* centralized data storage
* high-speed network fabric
* manual configuration
* containerized applications
* single-node processing
* orchestration tools like Kubernetes

Question 25

What are two benefits of integrating GPT models into Jupyter Lab for network automation tasks? (Choose two.)

Parte superior do formulário

* generating Python code for network configurations
* automatically deploying network hardware
* debugging existing Python scripts
* replacing network engineers entirely

Parte inferior do formulário

Question 26

Which of the following is a benefit of using GPT models for network automation in Jupyter Lab?

Parte superior do formulário

* They eliminate the need for any human input.
* They automatically fix all code errors without user intervention.
* They assist in generating and debugging code.
* They replace the need for network hardware.

Parte inferior do formulário

Question 27

What is the primary purpose of using Jupyter Lab in the context of the AI Toolset?

Parte superior do formulário

* to serve as a lightweight text editor for writing simple code
* to combine formatted text with executable code in the same document
* to provide a platform for deploying virtual network devices
* to act as a server for hosting GPT models

Parte inferior do formulário

Question 28

Why is it important to verify the output of GPT-generated code in Jupyter Lab?

Parte superior do formulário

* GPT models always produce flawless code.
* Verifying code is unnecessary with advanced models.
* GPT models automatically correct their own errors upon execution.
* GPT-generated code may contain errors that require human verification.

Parte inferior do formulário

Question 29

How does Jupyter AI enhance the functionality of Jupyter Lab?

Parte superior do formulário

* by allowing offline file editing
* by integrating real-time AI model interaction within the environment
* by providing cloud storage for notebooks
* by offering pre-written Python scripts

Parte inferior do formulário

Question 30

Which command is used to start Jupyter Lab from a specific directory?

Parte superior do formulário

* start jupyterlab
* run jupyter
* open jupyter lab
* jupyter lab

Parte inferior do formulário