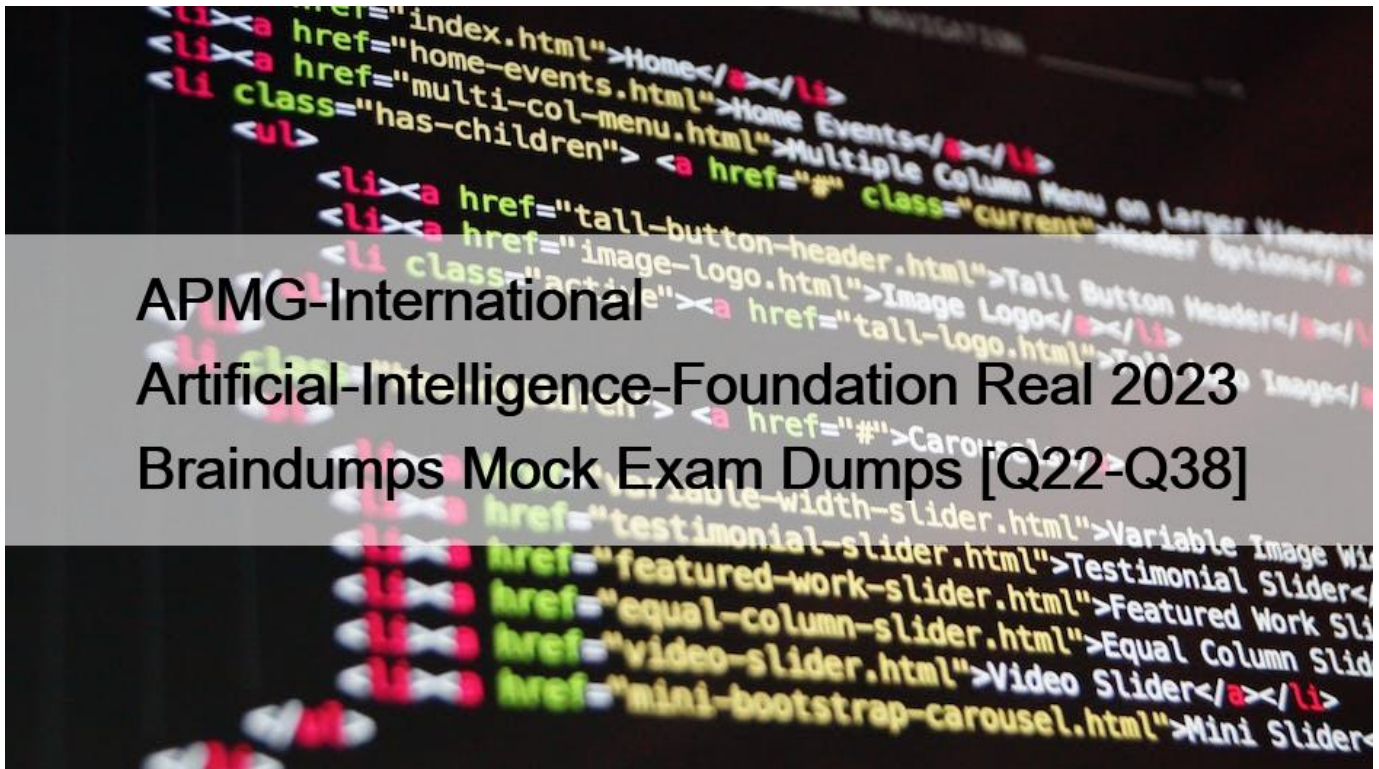


APMG-International Artificial-Intelligence-Foundation Real 2023 Braindumps Mock Exam Dumps [Q22-Q38]



illnesses.

References:

[1] <https://www.bcs.org/upload/pdf/foundation-certificate-ai-syllabus-v1.pdf> [2] <https://www.apmg-international>

Q23. Splitting data into Training and Test data sets is part of what?

- * Machine learning data preparation.
- * Batch learning.
- * Machine learning post processing.
- * High performance computing strategy.

Explanation

Splitting data into training and test data sets is an important step in the machine learning data preparation process. This process involves splitting the data into subsets, usually in a 70:30 ratio, to create a training set and a test set. The training set is used to train the machine learning model, while the test set is used to evaluate the model's performance. This process allows for the model to be tested and evaluated on data that it has not seen before, in order to ensure that it is accurate and able to generalize to new data. References: BCS Foundation Certificate In Artificial Intelligence Study Guide, <https://bcs.org/certifications/foundation-certificates/artificial-intelligence/>

Q24. Para View allows large data sets to be visualised on a parallel computer.

Which of the following is one of the techniques used?

- * Norm calculation.
- * Dashboard.
- * Contour plot
- * Eigen function analysis.

Explanation

ParaView is an open-source, multi-platform visualization application that allows large data sets to be visualized on a parallel computer. ParaView uses a variety of techniques to visualize data, including contour plots, which are useful for visualizing 3D data sets. Contour plots are created by plotting a set of curves connecting points of equal value, with each curve representing a particular value. This allows 3D data sets to be visualized in a 2D format, making it easier to understand the data.

References: [1] BCS Foundation Certificate In Artificial Intelligence Study Guide, Page number 19 [2] APMG International, [What is ParaView?](https://apmg-international.com/en/blog/what-is-paraview/); <https://apmg-international.com/en/blog/what-is-paraview/> [3] EXIN,

[What is ParaView?](https://www.exin.com/blog/what-is-paraview/); <https://www.exin.com/blog/what-is-paraview/>

Q25. What term do computer scientists and economists use to describe how happy an agent is?

- * Index.
- * Warm.
- * Return
- * Utility.

Explanation

<https://griffinshare.fontbonne.edu/cgi/viewcontent.cgi?article=1008&context=ijds> Computer scientists and economists use the term [utility](https://www.exin.com/blog/what-is-paraview/) to describe how happy an agent is. Utility is a measure of satisfaction or preference, and it is used to evaluate an agent's satisfaction with a particular outcome. Utility can be used to determine the optimal decision or action for an agent to take in order to maximize its satisfaction. References:

[1] BCS Foundation Certificate In Artificial Intelligence Study Guide, “Decision Making and Planning”, p.99-100.
[2] APMG-International.com, “Foundations of Artificial Intelligence”; [3] EXIN.com, “Foundations of Artificial Intelligence”

Q26. What is an intelligent robot?

- * A robot that has consciousness
- * A robot that acts like a human.
- * A robot that uses AI techniques.
- * A robot that takes the place of a human.

Explanation

An intelligent robot is one that uses AI techniques, such as machine learning and natural language processing, to perceive, plan and act on its environment. Intelligent robots are able to process large amounts of data quickly and accurately, allowing them to make decisions and carry out tasks autonomously. Intelligent robots can be used in a variety of applications, from industrial automation to healthcare.

Q27. Collaboration, learning and iterative are terms used to describe what?

- * Waterfall projects.
- * Rapid software development.
- * Trustworthy AI.
- * Agile projects

Explanation

Collaboration, learning, and iterative are terms used to describe agile projects. Agile projects are designed to be adaptive and flexible, allowing teams to incorporate feedback and learn from their mistakes. This process encourages collaboration between team members, and emphasizes the importance of iterative development and continual improvement. Agile projects focus on delivering value quickly and efficiently, allowing teams to make changes and adapt to changing customer needs.

References:

[1] <https://www.bcs.org/upload/pdf/foundation-certificate-ai-syllabus-v1.pdf> [2] <https://www.apmg-international>

Q28. With a large dataset, limited computational resources or frequent new data to learn from, we can adopt what type of machine learning?

- * Batch learning.
- * Big Data learning.
- * Patchwork learning.
- * Online learning.

Explanation

Batch learning describes learning from large data sets. All of the data are used to train and test the algorithm. The computer resources required are governed by the volume, velocity, variety and veracity of data. This learning is done offline. Online learning is undertaken with data in small or mini batches. Learning occurs as data become available – an example is a system that learns from stock market prices.

Online learning is a type of machine learning that can be used when a large dataset is limited in computational resources or if the data is frequently changing. It allows the system to learn from new data as it is being presented, rather than having to re-train the entire dataset each time new data is added. This makes it more efficient and effective than batch learning, as it only needs to process the new data and not the entire dataset.

Online learning is often used in applications such as fraud detection, where new data is constantly being added and needs to be analyzed quickly.

For more information, please refer to the BCS Foundation Certificate In Artificial Intelligence Study Guide (<https://www.bcs.org/upload/pdf/bcs-foundation-certificate-in-artificial-intelligence-study-guide.pdf>) or the EXIN Artificial Intelligence Foundation Certification (<https://www.exin.com/en/exams/artificial-intelligence-foundation>).

Q29. Tensor flow is a typical open source what?

- * Cloud based AI application.
- * Intelligent robot paradigm.
- * Machine learning library.
- * Agent based modelling application

Explanation

TensorFlow is an end-to-end open source platform for machine learning. It has a comprehensive, flexible ecosystem of tools, libraries and community resources that lets researchers push the state-of-the-art in ML and developers easily build and deploy ML powered applications.

<https://www.tensorflow.org/#:~:text=TensorFlow%20is%20an%20end%2Dto,and%20deploy%20ML%20power> TensorFlow is an open source machine learning library created by Google. It is used for dataflow programming and is widely used for a variety of applications, including machine learning and deep learning.

TensorFlow enables developers to build, train and deploy machine learning models easily and quickly. It has built-in support for a variety of deep learning frameworks, such as convolutional neural networks, recurrent neural networks, and autoencoders.

For more information, please refer to the BCS Foundation Certificate In Artificial Intelligence Study Guide (<https://www.bcs.org/upload/pdf/bcs-foundation-certificate-in-artificial-intelligence-study-guide.pdf>) or the EXIN Artificial Intelligence Foundation Certification (<https://www.exin.com/en/exams/artificial-intelligence-foundation>).

Q30. Reflex and Model-based Reflex are two types of what?

- * Robot
- * Artificial intelligent agents.
- * Algorithms.
- * Compilers.

Explanation

Reflex and Model-based Reflex are two types of Artificial Intelligent Agents. Artificial Intelligent Agents are computer systems designed to act and think in a manner similar to humans, incorporating elements of problem solving, decision-making, communication, and learning. Reflex agents are reactive agents which act based on the current environment and conditions, while Model-based Reflex agents use a model of the environment to make decisions. References: BCS Foundation Certificate In Artificial Intelligence Study Guide, <https://www.bcs.org/ai/certificate/> and APMG International, <https://www.apmg-international.com/qualifications/artificial-intelligence-foundation-certificate>.

Q31. What does Prof David Chalmers describe the hard consciousness problem to be as complex as?

- * Psychology.
- * Turbulence.
- * Quantum mechanics.
- * The universe.

Explanation

Prof David Chalmers describes the hard consciousness problem to be as complex as the universe. He argues that understanding consciousness is as hard as understanding the universe itself, due to the number of variables and dimensions involved. He has compared the complexity of the problem to that of turbulence, quantum mechanics, and psychology, but believes that the problem of consciousness is even more complex than all of these.

References:

[1] <https://www.bcs.org/upload/pdf/foundation-certificate-ai-syllabus-v1.pdf> [2] <https://www.apmg-international.com/en/blog/what-is-a-waterfall-model/>

David J. Chalmers, "The Hard Problem of Consciousness", in J. Shear (ed.), *Explaining Consciousness: The Hard Problem*, MIT Press, 1997.

Q32. Which factor of a Waterfall approach is most likely to result in the failed delivery of an AI project?

- * Takes longer to deliver all functional requirements.
- * Discourages collaboration and cross boundary communication.
- * Takes longer to complete the design phase of the project.
- * Discourages revisiting and revising any prior phase once it is complete.

Explanation

The Waterfall approach is a sequential design process in which each phase of development must be completed before the next phase can begin. This means that once a phase is complete, it is difficult to go back and make changes, as any changes made to the project could potentially affect all the other phases. As a result, the Waterfall approach can make it difficult to adapt to changing customer requirements or adjust to new technology. This can ultimately lead to the failed delivery of an AI project.

References: [1] BCS Foundation Certificate In Artificial Intelligence Study Guide, Page number 19 [2] APMG International, "What is a Waterfall Model?", <https://apmg-international.com/en/blog/what-is-a-waterfall-model/> [3] EXIN, "What is the Waterfall Model?", <https://www.exin.com/blog/what-is-the-waterfall-model/>

Q33. An intelligent robot uses AI to do what?

- * Sense, plan and act
- * Plan, act and speak.
- * Perceive, plan and act.
- * Sense, plan and move.

Explanation

An intelligent robot uses Artificial Intelligence (AI) to perceive its environment, plan its actions and then act on them. This is sometimes referred to as the "sense, plan, act" cycle, and is at the heart of what makes a robot intelligent. By using AI, robots can sense their environment, plan their actions accordingly and then act on them in order to complete their tasks.

For more information, please refer to the BCS Foundation Certificate in Artificial Intelligence Study Guide: <https://www.bcs.org/category/18076/bcs-foundation-certificate-in-artificial-intelligence-study-guide>.

Q34. What does TRL stand for?

- * Technical Robotic Level.

- * Transform Reinforced Learning
- * Technology Readiness Level.
- * Transport Ready Level.

Explanation

Technology Readiness Level (TRL) Technology Readiness Levels (TRL) are a method of estimating the technology maturity of Critical Technology Elements (CTE) of a program during the acquisition process.

<https://acqnotes.com/acqnote/tasks/technology-readiness-level#:~:text=Technology%20Development-,Technolog> TRL stands for Technology Readiness Level and is a measure of how close a technology is to being ready for use in a real-world environment. TRL is used to assess the progress of research and development of a technology, ranging from basic research (TRL 1) to fully operational (TRL 9). TRL is used to help determine the level of completion of a technology and its potential success in a real-world environment.

References:

[1] <https://www.bcs.org/upload/pdf/foundation-certificate-ai-syllabus-v1.pdf> [2] <https://www.apmg-international>

Q35. Narrow or weak AI can be useful to robots.

Which of the following is an example of narrow AI?

- * Conscious simulation.
- * Artificial General AI.
- * Conscious integration.
- * NLP – Natural Language Processing.

Explanation

NLP – Natural Language Processing is an example of narrow AI. It is a type of AI system that is able to understand, interpret, and generate natural language. NLP has become increasingly popular over the past few years, as it has been used to create applications such as chatbots, virtual assistants, and search engines. NLP systems are able to learn language and the context in which it is used, and they are able to understand the nuances of language and its different meanings. References: BCS Foundation Certificate In Artificial Intelligence Study Guide, <https://www.bcs.org/certifications/foundation-certificates/artificial-intelligence/>

Q36. Who was the pioneer of computer programming?

- * Dame Wendy Hall.
- * Karen Spark Jones.
- * Ada Lovelace.
- * Sophie Wilson

Explanation

<https://www.techopedia.com/2/31564/watercooler/ada-lovelace-enchantress-of-numbers> Ada Lovelace was an English mathematician and writer who is widely credited as the pioneer of computer programming. In 1842, she wrote an article in which she outlined the fundamental principles of computing, making her the first person to recognize the potential of computers and to describe algorithms that could be used to program them. Her work laid the basis for modern computing and is recognized as one of the most significant contributions to the field of computing.

References: <https://www.bcs.org/more/certifications/foundation-certificate-in-artificial-intelligence/> <https://www>

Q37. In Machine learning what are a brain’s axons called?

- * Dendrites

- * Edges
- * Tetrahedra.
- * Nodes

Explanation

In Machine Learning, the brain's axons are referred to as nodes. Nodes are the components of a neural network that are responsible for processing the input data and generating the output. A node is a mathematical function that takes input data, performs a computation on it, and produces an output. Each node is connected to other nodes in the network via edges, which represent the strength of the connection between the respective nodes. The strength of the connection between two nodes is determined by the weights assigned to each edge.

The weights are adjusted during the training process to generate the desired results.

For more information, please refer to the BCS Foundation Certificate In Artificial Intelligence Study Guide (<https://www.bcs.org/upload/pdf/bcs-foundation-certificate-in-artificial-intelligence-study-guide.pdf>) or the EXIN Artificial Intelligence Foundation Certification (<https://www.exin.com/en/exams/artificial-intelligence-foundation>).

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