

### Revision for Lesson 1

In 1997, IBM's Deep Blue, a computer capable of analyzing 200 million moves per second defeats world champion

\_\_\_\_\_. Fill in the blank.

Select one:

- a. Brad Rutter
- b. Ken Jennings
- c. Gary Kasparov
- d. Lee Sedol

Which of the following best describes the difference between AI, Machine Learning and Deep Learning?

Select one:

- a. Each level is differentiated by specific algorithms that power the system.
- b. They are synonyms for the same approach for the field of artificial intelligence.
- c. Deep Learning is a subset of Machine Learning, which in turn is a subset of artificial intelligence.
- d. Machine Learning is a subset of Deep Learning, which in turn is a subset of artificial intelligence.

The key difference between narrow intelligence and broad intelligence is best described by which of the following phrases?

Select one:

- a. Narrow and Broad intelligence is distinguished by complexity of algorithms.
- b. Broad intelligence requires huge amounts of data, whereas narrow intelligence relies on minimum data.
- c. Narrow AI can only do a certain task—and it can do it quite well—but narrow AI can't transfer its knowledge to different sorts of problems as with Broad AI.
- d. Broad intelligence can extract meaning from images, whereas Narrow Intelligence is best suited for language processing.

From 1974 until 1980, there was the first "AI winter." Which of the below may have precipitated this decline in AI work?

Select one:

- a. The Lighthill report and governments' funding restrictions
- b. There were no scientists working on the problem in those years.
- c. The algorithms were not good enough.
- d. Because of the war

AI learning process entails human and machine activities; which of the following best depicts machine-related activities?

Select one:

- a. Identify the data-analytics problem
- b. Define hyperparameters
- c. Analyze the data provided by the model
- d. Learns by adjusting weights and biases

Which of the following learning methods is predominantly used with self-driving cars?

Select one:

- a. Supervised learning
- b. Unsupervised learning
- c. Reinforcement learning
- d. None of the above because self-driving cars use Broad AI

Human experts could use AI expertise to address which of the following challenges?

Select one:

- a. AI scales expertise to expand what is possible.
- b. AI systems have better vision.
- c. AI systems can predict our preferences.
- d. AI systems have world knowledge.

How does IBM view the impact of artificial intelligence?

Select one:

- a. It is here to augment human intelligence.
- b. It is how systems predict the future.
- c. It is about automating mundane tasks that humans do.
- d. It is about the quest for artificial general intelligence (AGI).

IBM Business Value 2017 2Q C-suite research has identified three stages of automation: Basic, advanced and intelligent.

Which of the following examples depicts an intelligent business process automation?

Select one:

- a. The "robot" is taught to drive applications like a human.
- b. Uses AI to complete specific tasks.
- c. The "robot" follows predetermined pathways, conducts complex calculations and performs actions.
- d. The "robot" reasons and learns through data discovery.

Best practices to successfully implementing AI within an organization includes which of the following approaches?

Select one:

- a. Develop an AI strategy and roadmap
- b. Establish AI capabilities and skills
- c. Start small and scale quickly
- d. All of the above

While relevant AI use cases span various areas across virtually every industry, there are three main macro domains that continue to drive the adoption as well as the most economic savings across businesses. Which of the following best depict those three main domains?

Select one:

- a. Engagement, insight and automation
- b. Narrow, broad and general
- c. Supervised, unsupervised and reinforcement
- d. All of the above

Which of the factors below has been a compelling motivation for machine learning approaches?

Select one:

- a. The growth of unstructured data
- b. The need to extract insights from images
- c. The need to extract sentiment from Tweets
- d. All of the above

Oxford philosopher and leading AI thinker \_\_\_\_\_ defines superintelligence as “an intellect that is much smarter than the best human brains in practically every field, including scientific creativity, general wisdom and social skills.” Fill in the blank.

Select one:

- a. Nick Bostrom
- b. Andrew Ng
- c. Geoffrey Hinton
- d. Alan Turing

Self-driving cars need to see, understand how the objects are moving, and decide what to do next. Which of the following, as elaborated in the Driverless Cars video, best categorizes the above three requirements?

Select one:

- a. Perception, prediction, planning
- b. LIDAR technology, LASER technology and machine learning
- c. Visual recognition, Natural Language Understanding and Watson Machine Learning
- d. None of the above

From retail to education, AI technology areas play an important role in reinventing industries and transforming our world.

Which of the following are examples of key AI technologies?

Select one:

- a. Virtual agents and computer vision
- b. Education and healthcare
- c. Privacy and bias
- d. Personalization and automation

To build a conversation agent or a virtual agent that can sense and respond accordingly to frustrated or joyful inflections in human voice, you would need the Conversation service plus a minimum of what other essential service?

Select one:

- a. Discovery
- b. Speech to Text
- c. Tone Analyzer
- d. Natural Language Classifier

Natural language processing is needed when you wish to mine \_\_\_\_\_ data and extract meaningful insight from text. Fill in the blank.

Select one:

- a. Unstructured
- b. Structured
- c. Relational
- d. Formatted

How would you go about using two services, the Watson Assistant and the Discovery services, together where one picks up where the other leaves off? Select all that apply.

Select one or more:

- a. You can wire them together in Node-RED.
- b. You can use one of the Dialog nodes to conditionally jump to the Discovery service using confidence value thresholds.
- c. Ensure the Watson Assistant service is accessed before the Discovery Service in your pipeline.
- d. You cannot combine these services, instead use a service that already includes both running as one service

Which of the following Natural Language Processing attributes are integral to the Watson Assistant service?

Select one:

- a. Emotion
- b. Sentiment
- c. Entities
- d. All of the above

When you think of the syntax of a sentence, which of the following comes to mind? Select all that apply.

Select one or more:

- a. Concept
- b. Sentiment
- c. Annotate
- d. Tokenize

\_\_\_\_\_ is used to compute the informative question words based on the statistics of the text corpus. Fill in the blank. Select one:

- a. Named entity detection
- b. Relation extraction
- c. Inverse document frequency
- d. Deep parsing

When you purchase an item from Amazon, it also suggests to you other related items. What is the name of that AI engine that brings forth suggestions as such?

Select one:

- a. Annotator engine
- b. Recommender engine
- c. Clustering engine
- d. Discovery engine

When working with the Watson Assistant service, you are prompted to create intent, entity and dialog. Which of those tasks invokes the machine learning process to start in the background? Select all that apply.

Select one or more:

- a. Intent
- b. Entity
- c. Dialog
- d. Content Catalog

UIMA stands for Unstructured Information Management Architecture. What is its main purpose?

Select one:

- a. Its main goal is to transform unstructured information to structured information.
- b. It is the premier pipeline for analyzing the meaning of the spoken words.
- c. Its main purpose is to extract the semantic from the syntactic in a given sentence.
- d. All sentences need to be processed through the UIMA pipeline before the outcome is passed onto neural networks.

Why would you want to have more than one Workspace in a single instance of your Watson Assistant? Select all that apply.

Select one or more:

- a. You could use one workspace for regular chit-chat and the second one for the domain-specific business conversations.
- b. Each workspace could act as a separate bot or application
- c. You can only have one Workspace per Instance, unless you upgrade to Premium.
- d. None of the above is true.

Is it possible to use more than one service in a given application deployed on IBM Cloud? Select one:

- a. Absolutely yes. You can add a number of connections to the app, each connection being a separate API.
- b. You will need a new app for each service.
- c. Yes, but only if you upgrade to Premium service plan.
- d. It is possible, but you must limit it to a maximum of two services per deployed application.

Which of the following is an example of an Intent used in the Watson Assistant service?

Select one:

- a. #turn\_on
- b. @turn\_on
- c. %turn\_on
- d. \$turn\_on

In a digital marketing firm, which of the following is a crucial data set for you to analyze? Select all that apply.

Select one or more:

- a. Ensure your customers are fully aware of which algorithms you used for transparency sake.
- b. Strive to adopt a personalized 'chat and listen' approach versus a 'yell and sell' approach.
- c. Being always on and keeping it real becomes therefore much more important for a brand than being picture or pixel perfect (and thus only sporadically on/always late).
- d. Do not throw away any data points, it all helps to predict a better outcome.