SuperDataScience

# 10 SAMPLE EXAM QUESTIONS
## + COMPLETE ANSWER KEY

# MACHINE AND DEEP LEARNING IN AWS — PART #1

1. **You are given access to sales data of a company and you want to perform forecasting based on the input data. Which AWS service can be used for this purpose?**

   A Use AWS polly
   B Use AWS Lex
   C Use AWS DeepAR
   D Use AWS XGBoost

2. **You are working for a computer vision company and you are tasked to come up with a model to detect objects in the frame as well as their distance from the camera. There is no pre-build algorithm available in AWS. What can you do?**

   A Use existing algorithm and fine-tune them
   B Wait for the algorithm to be available
   C You can build your own algorithm in docker container and use it for training and inference instances
   D Combine existing algorithm to achieve this functionality

3. **You are working on a product recommendation model for an e-commerce site and you would like to expose the model to limited traffic to get analyze the performance of the model before completely deploying it. How can you test the model in this way?**

   A You can use EC2 deployment to analyze the model performance before deploying it
   B You can use F1-score to analyze the model performance before deploying it

C You can use K-Fold validation method to analyze the model performance before deploying it

D You can use canary deployment to analyze the model performance before deploying it

4. **You have created a ML model using Sagemaker's built-in XGBoost algorithm and would like to use that in a RC car equipped with Raspberry Pi as the local computing unit. How can you make this work?**

A Use AWS Redshift to compile the model in a way that can be used by ARM processor in Raspberry Pi

B Use Sagemaker Neo to compile the model in a way that can be used by ARM processor in Raspberry Pi

C Use Robomaker to compile the model in a way that can be used by ARM processor in Raspberry Pi

D Use EC2 to compile the model in a way that can be used by ARM processor in Raspberry Pi

5. **You want to design a model to predict the price of house in your locality based on the information available. The data includes attributes like number of room, price and area. Which of the algorithm can be used for this kind of problem?**

A LDA

B PCA

C XGBoost

D Lex

E Seq2seq

6. **You working on a project for an marketing company and they have launched a new product. They want to predict the expected sales from the historic data containing sales of their other products. Which built-in Sagemaker algorithm could be used here?**

   A Linear regression
   B K-means
   C LDA
   D DeepAR
   E Comprehend

7. **You want to use the model artifacts from another training job. So that you don't want to start from scratch. Which type of training would help in this case?**

   A Split training
   B Artifact training
   C Incremental training
   D Prior training

8. **You want to tune the hyperparameter for your model in Sagemaker. What method is used by Sagemaker for this purpose?**

   A Bayesian Optimization
   B Gaussian Optimization
   C MinMax Optimization
   D RandomFactor Optimization

9. **You want to build an image classification algorithm using Sagemaker. What are the steps involved in creating an image classifier?**

   A Upload the dataset to RDF and use built-in Sagemaker Image Classifier

   B Upload the dataset to S3 and use built-in Sagemaker XGBoost

   C Upload the dataset to S3 and use built-in Sagemaker Image Classifier

   D Upload the dataset to RDF and use built-in Sagemaker XGBoost

10. **You are given access to a large dataset containing about million rows of data. The dataset contains information about customer feedback on different products. You are tasked to build a recommendation model that is able to predict how many people would like the new product they are launching. There are some missing data in the dataset making it a sparse dataset. What algorithm can be used?**

    A Principal Component Analysis

    B K-Means

    C Seq2Seq

    D Factorization Machines

## ANSWER KEY:

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|---|---|---|---|---|
| 1. C | 2. C | 3. D | 4. B | 5. C |
| 6. D | 7. C | 8. A | 9. C | 10. D |