Module 1 Quiz

1. Which of the following is not a computer vision task?
   - Volumetric analysis
   - Pose Estimation
   - Object Detection
   - Semantic segmentation

2. Which deep learning framework is the GluonCV toolkit based on?
   - Pytorch
   - Apache MXNet
   - Caffe
   - Chainer

3. Which of the following is **untrue** about the symbolic paradigm in deep learning frameworks?
   - Symbolic programs do not need to be compiled before they can be executed
   - Symbolic programs provide opportunities to optimize computational graphs
   - Symbolic programs can be hard to debug when they throw an error
   - Symbolic programs are often constructed with variable placeholders

4. What command in the Gluon APl of MXNet converts an imperative computational graph to a symbolic graph?
   - .convert()
   - .to_symbol()
   - .hybridize()
   - .optimie()

5. What area of machine learning currently achieves State of the Art performance in computer vision tasks?
    - Reinforcement Learning
    - Metric Learning
    - Similarity Learning
    - Deep Learning

6. What do image classification models predict?
    - A cluster centroid for the class of objects in the Image
    - A hierarchy for objects in the image
    - Another image that is similar to the input image
    - A predefined label for the image

7. Which computer vision tasks predicts pixel level masks for each distinct class of objects in the image?
    - Object extraction
    - Semantic Segmentation
    - Instant Segmentation
    - Super-resolution imaging

8. What discovery by Hubel and Wiesel and implemented by Fukushima in the Neocognitron is crucial to the success of modern deep learning-based computer vision systems?
    - Vision is intimately tied to recognition and understanding
    - Vision is achieved by convolution in the human brain
    - Vision is hierarchical and local at each level
    - Vision involves extensive feature engineering

9. What exactly led to the resurgence of neural network models and deep learning for computer vision tasks in 2012?

    - Availability of large datasets thanks to the internet
    - More powerful computational software and resources
    - Hardware accelerators like GPUs
    - All of the above

10. Which computer vision task is most appropriate for localizing appearances of barcodes in an image?

    - Image classification
    - Object Detection
    - Semantic Segmentation
    - Instance Segmentation