**List of Presentation topics (choose anyone) (20 marks)**

**Segmentation**

1. Explain all   
   **Instance Segmentation**

**Topic 1**

**Semantic Segmentation**

**Panoptic Segmentation**

1. Threshold
   1. **Global Thresholding -------**

**Topic 2**

* 1. **Adaptive Thresholding----**

1. Region based---
   1. **Split and merge segmentation**

**Topic 3**

* 1. **Graph-based segmentation**

1. Edge based
   1. **1. Canny edge detection----------- Topic 4**
   2. **2. Sobel edge detection----------- Topic 5**
   3. **3. Laplacian of Gaussian (LoG) edge detection----------- Topic 6**
2. Clustering
   1. **K-mean clustering----------- Topic 7**
   2. **Mean shift clustering----------- Topic 8**
3. Deep Learning-based methods
   1. **SegNet----------- Topic 9**
   2. **U-Net----------- Topic 10**
   3. **DeepLab----------- Topic 11**

**Object Detection**

1. RCNN**----------- Topic 12**
2. Mask and cascade RCNN**----------- Topic 13**
3. YOLO**----------- Topic 14**
4. SSD**----------- Topic 15**
5. Refinedet**----------- Topic 16**
6. RetinaNet **----------- Topic 17**
7. CornerNet**----------- Topic 18**

**Presentation should include: -**

1. Introduction
2. background
3. Theory (in detail)
4. Mathematical representation and operation (in detail)
5. Practice code
6. Working flow
7. Application
8. Others (if any)

If you want you can add more headings in the ppts