Time: 3 Hours   Marks: 80

N.B.:

1) Question No.1 is compulsory.
2) Attempt any three from the remaining five questions.
3) Figures to the right indicate full marks

Q1.	Write short note on:	
	(a) Haar-Based feature Detection	5M
	(b) Grey level transformation	5M
	(c) BoW Model	5M
	(d) Supervised Models	5M
Q2.	(a) Explain plotting of images, line, and graph using matplotlib. Give Example.	10M
	(b) What is CNN? What are its components?	
	Explain stride, padding and pooling with an example.	10M
Q3.	(a) Explain SFM(Structure from motion) and its Applications.	10M
	(b) Explain Data Augmentation and Dropout each with an Example.	10M
Q4.	(a) Explain Face detection with proper steps.	10M
	(b) Explain convolution layer of CNN architecture (along with its four hyperparameter).	10M
Q5.	(a) Elaborate any 3 applications of Computer vision.	10M
	(b) Explain SIFT - Scale-Invariant feature transform.	10M
Q6.	Write short notes on any two of the followings	
	(a) Forward and Backward Phases in CNN	10M
	(b) Structure with Motion	10M
	(c) Histogram Equalization	10M
	(d) Harris Corner Detector Algorithm	10M

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