

**VIVEKANANDA INSTITUTE OF PROFESSIONAL STUDIES - TECHNICAL CAMPUS**

**Grade A++ Accredited Institution by NAAC**

NBA Accredited for MCA Programme; Recognized under Section 2(f) by UGC;  
Affiliated to GGSIP University, Delhi; Recognized by Bar Council of India and AICTE  
An ISO 9001:2015 Certified Institution

**SCHOOL OF ENGINEERING & TECHNOLOGY**

ASSIGNMENT 1 (UNIT-I &II)				
Subject : UNSUPERVISED LEARNING		Subject Code: ML-465T		Sem: VII Branch: CSE
S. No.	QUESTION	CO	BL	MARKS
1	Differentiate between <b>Supervised and Unsupervised Learning</b> with suitable examples.	1	1,2	5
2	Explain <b>DBSCAN clustering</b> with an example. How does it differ from hierarchical clustering?	1,4	2,3	5
3	Describe the working of the <b>Variational Bayesian Gaussian Mixture Model</b> . Why is it preferred over standard GMM?	2	2	5
4	Apply <b>Isomap manifold learning</b> technique on a dataset of your choice (e.g., digits dataset) and explain the results.	2,3	2,3,4	5