

*Bansilal Ramnath Agarwal Charitable Trust's*  
**Vishwakarma Institute of Information Technology**  
**Department of Computer Engineering**

**Academic Year – Sem I (2015-16)**

**Class : ME (Computer Engineering)**

**510105B : Elective – I (Information Retrieval and WEB Mining)**

**Marks : 50**

**Time : 3 Hrs.**

**Date : 22 Dec 2015**

**Instructions for the students**

1. Any **THREE** questions have to be attempted from Q1 to Q6
  2. Q7 and Q8 are compulsory
  3. Each question carry **10 marks**
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**Q1.**

- a. Explain the problems with the vector space model. [4 Mks]
- b. Write on index construction with different techniques [4 Mks]
- c. Write note on TF-IDF. [2 Mks]

**Q2.**

- a. Explain different Language Models for Information Retrieval. [4 Mks]
- b. Explain Latent Semantic Indexing. [4 Mks]
- c. Write a note on Pseudo relevance feedback. [2 Mks]

**Q3.**

- a. What is Information Extraction? Explain with example [5 Mks]
- b. What is Web Content mining (WCM). [5 Mks]

**Q4.**

- a. Elaborate process of Information Filtering.[5 Mks]
- b. Explain LIBRA System as an example of Recommendation System. [5 Mks]

**Q5.**

- a. Write a note on [4 + 4 Mks]
  - i. Multimedia Retrieval
  - ii. Pattern matching in IR
- b. Classification is a supervised way of learning. Explain. [2 Mks]

**Q6.**

- a. Explain in detail process of patent search. [4 Mks]
- b. Discuss security issues in IR and web mining. [3 Mks]
- c. Write a note on Personalized PageRank. [3 Mks]

**Q7.**

- a. Elaborate in detail methods of personalization [5 Mks]
- b. Give various approaches To Transfer Learning [5 Mks]

**Q8.**

- a. Explain system architecture of digital library [5 Mks]
- b. Highlight different feature extraction techniques in CBIR [5 Mks]

\*\*\*\*\* All The Best \*\*\*\*\*