

[6361]-49

**B.E. (Computer Engineering) (Insem.)**  
**INFORMATION RETRIEVAL (Elective IV)**  
**(2019 Pattern) (Semester - VII) (410245A)**

*Time : 1 Hour]**[Max. Marks : 30**Instructions to the candidates:*

- 1) Answer Q1 or Q2, Q3 or Q4.
- 2) Neat diagram must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

**Q1)** a) Draw the software architecture of the IR System and explain its components in detail. [7]

- b) Describe the following IR Models : [8]
- i) Boolean Model
  - ii) TF-IDF

OR

**Q2)** a) What are stop words and suggest solution for stop words removal with suitable examples. [7]

- b) Describe the following IR Models : [8]
- i) Vector Model
  - ii) Latent Semantic Indexing Model

**Q3)** a) Enlist different types of Index construction and explain any two with suitable examples. [7]

- b) Describe the different Query processing techniques like Query Processing for Ranked Retrieval, Document-at-a-Time Query Processing and Term-at-a-Time Query Processing. [8]

OR

**Q4)** a) Explain Inverted Index Construction, Index Components and Index Life Cycle with suitable examples. [7]

- b) Write a short note on : [8]
- i) Query Optimization
  - ii) Lightweight Structure