

**M. TECH.-II (INFORMATION TECHNOLOGY) (CBCS – 2015  
COURSE) : SUMMER - 2018  
SUBJECT: INFORMATION RETRIEVAL**

Day: **Wednesday**  
Date: **13/06/2018**

**S-2018-3007**

Time: **11.00 AM TO 02.00 PM**  
Max Marks: 60

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the section should be written in **SEPARATE** answer books.
- 4) Draw neat and labeled diagram **WHEREVER** necessary.
- 5) Assume suitable data, if **necessary**.

**SECTION - I**

**Q.1** Describe the inverted index with suitable example. **(10)**

**OR**

**Q.1** Describe document representation and query formation with respect to information retrieval. **(10)**

**Q.2** Describe vector space model with suitable example. **(10)**

**OR**

**Q.2** Describe TF-IDF (term frequency/inverse document frequency) with the help of suitable example. **(10)**

**Q.3** Write a short note on relevance feedback, query expansion and query language with the help of suitable example. **(10)**

**OR**

**Q.3** What is the need of text processing? Explain various preprocessing tasks. **(10)**

**SECTION – II**

**Q.4** Describe the link analysis with the help of suitable example. **(10)**

**OR**

**Q.4** Describe with suitable example nearest neighbor algorithm. **(10)**

**Q.5** Describe the term smoothing with the suitable example. Explain how smoothing is used to improve the retrieval performance. **(10)**

**OR**

**Q.5** Describe agglomerative clustering with suitable example. **(10)**

**Q.6** Describe semantic web with the help of suitable example. **(10)**

**OR**

**Q.6** Describe the process of collecting and integrating specialized information on web. **(10)**

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