

Total No. of Questions : 12]

SEAT No. :

[Total No. of Pages : 3

**P3140**

**B.E. (Semester - II)**  
**INFORMATION TECHNOLOGY**  
**Information Retrieval**  
**(2008 Pattern)**

*Time : 3 Hours]**[Max. Marks : 100**Instructions to the candidates:*

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6 from section - I & Q7 or Q8, Q9 or Q10, Q11 or Q12 from section - II.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figures to the right indicate full marks.*
- 5) *Use of calculator is allowed.*
- 6) *Assume suitable data, if necessary.*

**SECTION - I**

- Q1)** a) Explain Conflation algorithm. What is index term weighting? [10]  
 b) Explain the differences between data retrieval and information retrieval. [6]  
 c) State Zipf's law. [2]

OR

- Q2)** a) Explain single-pass clustering algorithm in detail with a suitable example. [10]  
 b) What is dendrogram ? Explain with example the significance of it in clustering. [8]
- Q3)** a) Explain suffix array with the help of diagram. What is signature file ? How can it be constructed ? [8]  
 b) Explain the different kinds of search strategies. [8]

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OR

- Q4)** a) Describe the Fuzzy set model. [8]  
 b) How the cluster representatives are calculated? Explain with examples and stating different conditions & formulae. [8]

- Q5)** a) Describe various architectural issues & challenges for effective deployment of digital library. [10]  
 b) Explain the terms harmonic mean, E-measure, R-precision and precision histogram. [6]

OR

- Q6)** a) Write a note on : Online Public Access Catalog(OPAC). [8]  
 b) Explain different evaluation measures for information retrieval systems. [8]

**SECTION - II**

- Q7)** a) Describe Collection partitioning & Source Selection in distributed IR.[10]  
 b) Compare parallel and distributed IR. [8]

OR

- Q8)** a) Explain with suitable diagram & example logical document partitioning in Parallel IR. [10]  
 b) Write note on Query Processing in distributed IR. [8]

- Q9)** a) Explain GEMINI approach for feature extraction and distance function for 2D color image. [8]  
 b) Explain one dimensional time series. [8]

OR

- Q10)** a) Explain the query predicates of multimedia query language in detail. [8]  
 b) Write a note on MULTOS data model. [8]

- Q11)** a) List different forms of searching the Web and explain their challenges. [8]  
b) Explain Meta searches with examples. [8]

OR

- Q12)** a) Explain the crawler-indexer architecture. [8]  
b) Discuss Trends & Research Issues involved in the web. [8]

