**Adama Science and Technology University**

**School of Electrical Engineering and Computing**

**Department of Computer Science and Engineering**

Information Storage and Retrieval Assignments

***Chapter One:***

1. Compare and contrast *Information* *Retrieval* and *Data* *Retrieval*. (Page 7)
2. Explain in detail the two *subsystem* of an IR system. (Page 15)
3. What are the three types of *IR* *models* that have been used for years? (Page 27)
4. Write about the two types of *evaluation* *strategies* of IR systems? (Page 30)
5. What are the *challenges* for researchers and practitioners of IR? (Page 38)

***Chapter Two:***

1. What are the statistical properties of a given text? (Page 2)
2. Explain the main operations required for selecting the index terms in text operations. (Page 5)
3. What is thesaurus and what is the aim of using thesaurus? (Page 26)

***Chapter Three:***

1. Write and explain three index file *evaluation* *metrics*. (Page 8)
2. What is the difference between *sequential* *file* and *inverted* *file*? (Page 13)
3. What is text compression and what is its advantage? (Page 29)

***Chapter Four:***

1. How we can evaluate IR models? (Page 8)
2. What are the advantages and the disadvantages of the Boolean Model? (Page 13)
3. What are the advantages and disadvantages of the Vector space model? (Page 30)

***Chapter Five:***

1. What are the *main* *evaluation* *measures* to check the performance of an IR system? (Page 4)
2. What is the difference between *system*-*centered* evaluation and *user*-*centered* evaluation? (Page 5)
3. Relevance judgment is usually *subjective*, *situational*, *cognitive* and *dynamic*. What do these four terms mean? (Page 6)

***Chapter Six:***

1. What are the different types of queries of IR system? (Page 3)
2. What is a pattern query? (Page 10)
3. What is a natural language queries? (Page 14)

***Chapter Seven:***

1. Explain the *User relevance* and *Pseudo-relevance* feedback approaches for query operations. (Page 7)
2. What are *Local Analysis* and *Global Analysis*? (Page 12)