

**MCQ**

- 1) \_\_\_\_\_ is the Activity of obtaining material which can be documents of unstructured nature
  - a) **Information Retrieval**
  - b) Boolean Retrieval
  - c) Dictionary Retrieval
  - d) Tolerant Retrieval
- 2) Three major component of Information Retrieval system are document subsystem ,Retrieval Subsystem and \_\_\_\_\_
  - a) **User Subsystem**
  - b) Query Subsystem
  - c) Feedback Problem
  - d) Subsystem
- 3) \_\_\_\_\_ is the unit of information that we want to return as a result of
  - a) **Documents**
  - b) Collection
  - c) Posting List
  - d) Index
- 4) \_\_\_\_\_ is the topic about which the user desires to know more
  - a. Query
  - b. **Information Need**
  - c. Term
  - d. Document
- 5) \_\_\_\_\_ is the smallest unit of information in a query
  - a. Term
  - b. Document
  - c. **Word**
  - d. Index

- 6) Permuterm index is a index form of \_\_\_\_\_ index
- a. Inverted
  - b. Real
  - c. Term
  - d. Dictionary
- 7) A Query like mon is called as \_\_\_\_\_ wildcard query
- a. Trailing
  - b. Heading
  - c. New
  - d. Real
- 8) \_\_\_\_\_ algorithm is the algorithm for phonetic hashing
- a. Soundex
  - b. Phonetic
  - c. k-gram
  - d. Edit distance
- 9) Edit distance is \_\_\_\_\_ type of spelling correction
- a. Isolated term correction
  - b. Context Sensitive correction
  - c. k-gram correction
  - d. both A and B
- 10) In Permuterm index \_\_\_\_\_ symbol is used to mark the end of a term
- a. \$
  - b. %
  - c. &
  - d.
- 11) \_\_\_\_\_ is fraction of returned result relevant to information need
- a. Precision
  - b. Recall
  - c. Corpus
  - d. Relavance
- 12) Within Documernt collection each document has unique serial number known as \_\_\_\_\_
- a. Document Identifier
  - b. Document Number
  - c. Document Id
  - d. Both b and c

- 13) \_\_\_\_\_ is the process of selecting how to organize the work of answering a query so that least amount of work need to be done by system
- a. Query optimization
  - b. Query minimization
  - c. Query Answering
  - d. Both a and c
- 14) \_\_\_\_\_ is a model for information retrieval in which we can pose any query which is in the form of Boolean Expression of terms
- a. Boolean Retrieval
  - b. Dictionary retrieval
  - c. Tolerent retrieval
  - d. Both a and b
- 15) \_\_\_\_\_ is a fraction of relavant documents in the collection were returned by the system
- a. Precision
  - b. Recall
  - c. Corpus
  - d. Relavance
- 16) The idea to use computers for searching information was published in the article As We May Think by \_\_\_\_\_ in 1945
- a. Vannever Bush
  - b. Holmstrom
  - c. Gerard Salton
  - d. Both a and c
- 17) \_\_\_\_\_ is the data structure for faster information retrieval which is collection of selected words and associated pointers
- a. Index
  - b. Library
  - c. Metadata
  - d. Term
- 18) \_\_\_\_\_ were the first to adopt Information retrival system for retriving information

- a. Libraries
  - b. Google
  - c. NIST
  - d. Both a and c
- 19) In Document subsystem Abstracting contains
- a. Summarizing
  - b. Bibliographic description
  - c. Acquisition
  - d. Both a and c
- 20) In Document Subsystem file organization contains term by term list of records under each term is called as \_\_\_\_\_
- a. Inverted
  - b. Sequential
  - c. Combination
  - d. Both a and c
- 1) IR Stands for \_\_\_\_\_.
- a) Information Retrieval
  - b) Information Retired
  - c) Inform Retrieval
  - d) Information Ready
- 2) Each item in the list is called as \_\_\_\_\_.
- a) Items
  - b) Posting
  - c) Query
  - d) Information
- 3) etr term is called \_\_\_\_\_ k-grams wildcard query.
- a) 3
  - b) 4
  - c) 1
  - d) 2
- 4) To search document by \_\_\_\_\_ in IR.
- a) id
  - b) docID
  - c) number
  - d) #digits
- 5) SEO stands for \_\_\_\_\_.
- a) Search English Optimization
  - b) Search Engine Optimization
  - c) Search Engine Operator

d) Search Engine Operation

6) Dictionary performed by \_\_\_\_\_ pair

- a) Key and Value
- b) Value and Number
- c) Id and Number
- d) Name and code

7) An advantage of a positional index is that it reduces the asymptotic complexity of a postings intersection operation.

- A) True
- B) False

8) \_\_\_\_\_ can best be described as a programming model used to develop Hadoopbased applications that can process massive amounts of data.

- A) MapReduce
- B) Mahout
- C) Oozie
- D) All of the mentioned

9) The purpose of the inverse document frequency is to increase the weight of terms with high collection frequenc.

- A) True
- B) False

10) URL Stands for \_\_\_\_\_.

- a) Uniform Ravar Location
- b) Uniform Resource Locator
- c) Uni Resource Locate
- d) Uniform Reverse Locator

11) A data structure that maps terms back to the parts of a document in which they occur is called an

- A) Postings list
- B) Incidence Matrix
- C) Dictionary
- D) Inverted Index

12) The first large information retrieval research group was formed by \_\_\_\_\_ at cornell in 1960.

- a) Gerard Salton
- b) Ratan Tata
- c) Ramesh Bush
- d) Think Roy

13) Input, Purpose and Output are the factors of \_\_\_\_\_ .

- a) Summarization
- b) Question Answering
- c) Page Rank
- d) Personalized Search

14) A deadlock can be broken down by

- a) Committing one or more transactions
- b) Aborting one or more transactions
- c) Rolling back one or more transactions
- d) Terminating one or more transactions.

15) NLTK stands for \_\_\_\_\_ .

- a) Natural Language Toolkit
- b) Natural Lang Tool
- c) Natural Long Tooltip
- d) Nature Language Toolkit

A model of information retrieval in which we can pose any query in which search terms are combined with the operators AND, OR, and NOT:

Select one:

- 1. Ad Hoc Retrieval
- 2. Ranked Retrieval Model
- 3. Boolean Information Model
- 4. Proximity Query Model

The correct answer is: Boolean Information Model

Question 2

A data structure that maps terms back to the parts of a document in which they occur is called an (select the best answer):

Select one:

- 1. Postings list
- 2. Incidence Matrix
- 3. Dictionary
- 4. Inverted Index

The correct answer is: Inverted Index

Question 3

A process to efficiently intersect lists to be able to quickly find documents that contain both terms is referred to as merging postings lists.

Select one:

True  
False

The correct answer is 'True'.

Question 4

The model of information retrieval in which we can pose any query in the form of a Boolean expression is called the ranked retrieval model.

Select one:

True  
False

The correct answer is 'False'.

Question 5

The number of times that a word or term occurs in a document is called the:

Select one:

- 1. Proximity Operator
- 2. Vocabulary Lexicon
- 3. Term Frequency
- 4. Indexing Granularity

The correct answer is: Term Frequency

Question 6

Stemming increases the size of the vocabulary.

Select one:

True

False

The correct answer is 'False'.

**Question 7**

In information retrieval, extremely common words which would appear to be of little value in helping select documents that are excluded from the index vocabulary are called:

Select one:

1. Stop Words
2. Tokens
3. Lemmatized Words
4. Stemmed Terms

The correct answer is: Stop Words

**Question 8**

A crude heuristic process that chops off the ends of the words to reduce inflectional forms of words and reduce the size of the vocabulary is called:

Select one:

1. Lemmatization
2. Case Folding
3. True casing
4. Stemming

The correct answer is: Stemming

**Question 9**

An advantage of a positional index is that it reduces the asymptotic complexity of a postings intersection operation.

Select one:

True

False

The correct answer is 'False'.

**Question 10**

An index that includes sequences of words or terms of variable length that have been extracted from a source document is called a:

Select one:

1. Phrase Index
2. Biword index
3. Positional index
4. Inverted Index

The correct answer is: Phrase Index

One disadvantage, as outlined in our text, of using a permuterm index for wild card queries is:

Select one:

1. It requires complex code that is difficult to maintain
2. It has the risk of key collisions which are difficult to resolve
3. The required rotations creates a very large dictionary
4. It cannot be used to find terms that are not spelled correctly

The correct answer is: The required rotations creates a very large dictionary

**Question 2**

Which of the following is a technique for context sensitive spelling correction:

Select one:

1. the Jaccard Coefficient
2. Soundex algorithms

3. k-gram indexes
4. Levenshtein distance

The correct answer is: Soundex algorithms

**Question 3**

For a very large collection of books of classic literature the most appropriate indexing algorithm would be:

Select one:

1. Block sort-based indexing algorithm
2. Single-pass in memory indexing algorithm
3. Distributed Map-Reduce indexing algorithm
4. Dynamic indexing process employing an auxiliary index

The correct answer is: Distributed Map-Reduce indexing algorithm

**Question 4**

For a large collection of documents such as the internet that experience frequent change the most appropriate indexing algorithm would be:

Select one:

1. Block sort-based indexing algorithm
2. Single-pass in memory indexing algorithm
3. Distributed Map-Reduce indexing algorithm
4. Dynamic indexing process employing an auxiliary index

The correct answer is: Dynamic indexing process employing an auxiliary index

**Question 5**

Given two strings s1 and s2, the edit distance between them is sometimes known as the:

Select one:

1. Levenshtein distance
2. isolated-term distance
3. k-gram overlap
4. Jaccard Coefficient

The correct answer is: Levenshtein distance

**Question 6**

For a moderately large collection of static documents maintained on a single system the most appropriate indexing algorithm would be:

Select one:

1. Block sort-based indexing algorithm
2. Single-pass in memory indexing algorithm
3. Distributed Map-Reduce indexing algorithm
4. Dynamic indexing process employing an auxiliary index

The correct answer is: Single-pass in memory indexing algorithm

**Question 7**

For a small collection of documents on a personal computer that don't experience any change the most appropriate indexing algorithm would be:

Select one:

1. Block sort-based indexing algorithm
2. Single-pass in memory indexing algorithm
3. Distributed Map-Reduce indexing algorithm
4. Dynamic indexing process employing an auxiliary index

The correct answer is: Block sort-based indexing algorithm

**Question 8**

Hashing is a process where an item is reduced, through a mathematical process, to an integer.

Select one:

True



False

The correct answer is 'True'.

**Question 9**

The size of the document collection that can be indexed by single-pass in-memory indexing algorithm is limited by the size of the disk storage the computer running the indexer process has access to.

Select one:

True

False

The correct answer is 'False'.

The formula used to estimate the vocabulary size of a collection is known as:

Select one:

1. Zipf's law
2. Power law
3. Heap's law
4. Compression ratio

The correct answer is: Heap's law

**Question 2**

Which of the following is NOT a benefit of index compression?

Select one:

1. Simplified algorithm design
2. Reduction of disk space
3. Faster transfer of data from disk to memory
4. Increased Use of caching

The correct answer is: Simplified algorithm design

**Question 3**

A compression algorithm that results in some loss of data is called:

Select one:

1. zipf compression
2. dictionary compression
3. lossless compression
4. lossy compression

The correct answer is: lossy compression

**Question 4**

An approach to compression that takes advantage of the redundancy in the dictionary that results from common prefixes that come from sorted terms is called:

Select one:

1. Front Coding
2. Blocked storage
3. Prefix Coding
4. Variable byte encoding

The correct answer is: Front Coding

**Question 5**

A disadvantage of compression is that it reduces the transfer of data from disk to memory.

Select one:

True

False

The correct answer is 'False'.

**Question 6**

The 30 most common words account for 30% of the tokens in written text is known as front

coding.

Select one:

True

False

The correct answer is 'False'.

Weighted zone scoring is sometimes referred to as ranked Boolean retrieval.

Select one:

True

False

The correct answer is 'True'.

**Question 2**

In the bag of words model, the exact ordering of terms within the document is both significant and relevant to processing.

Select one:

True

False

The correct answer is 'True'.

**Question 3**

The purpose of the inverse document frequency is to increase the weight of terms with high collection frequency.

Select one:

True

False

The correct answer is 'False'.

**Question 4**

A scheme where a weight is assigned to a term based upon the number of occurrences of the term within a document is called:

Select one:

1. Bag of Words
2. Document Frequency
3. Term Frequency
4. Optimal weight

The correct answer is: Term Frequency

**Question 5**

The number of documents within a collection that contain a particular term is the collection frequency of the term.

Select one:

True

False

The correct answer is 'False'.

**Question 6**

A metric derived by taking the log of N divided by the document frequency where N is the total number of documents in a collection is called:

Select one:

1. document frequency
2. tf-idf weight
3. collection frequency
4. inverse document frequency

The correct answer is: inverse document frequency

**Question 7**

The tf-idf weight is highest when a term t occurs many times within a small number of documents.

Select one:

True

False

The correct answer is 'True'.

**Question 8**

The tf-idf weight is lower when a term  $t$  occurs many times in a document or occurs in relatively few documents.

Select one:

True

False

The correct answer is 'False'.

**Question 9**

A measure of similarity between two vectors which is determined by measuring the angle between them is called:

Select one:

1. cosine similarity
2. sin similarity
3. vector similarity
4. vector scoring

The correct answer is: cosine similarity

**Question 10**

An index that is often supplemental to the inverted index and contains terms from only a particular field or section of a document is called a parametric index.

Select one:

True

False

The correct answer is 'True'.

An approach to retrieval in a search that is likely (but not precisely) to produce the top  $K$  scoring documents is called:

Select one:

1. Exact top  $K$  document retrieval
2. top scoring document retrieval
3. Inexact top  $K$  document retrieval
4. Imprecise top  $K$  document retrieval

**Question 2**

An approach to computing scores in an IR system that pre-computes for each term in the dictionary, the set of documents with the highest weights for the term is:

Select one:

1. Champion list
2. Impact ordering
3. Cluster pruning
4. Tiered indexes

**Question 3**

An approach to computing scores in an IR system that orders documents in the posting list of a term by decreasing order of term frequency is called:

Select one:

1. Champion list
2. Impact ordering
3. Cluster pruning
4. Tiered indexes

**Question 4**

An approach to computing scores in an IR system that selects a sample of documents randomly from the collection as leaders which are in the index and links similar documents to it (followers) is called:

Select one:

1. Champion list
2. Impact ordering
3. Cluster pruning
4. Tiered indexes

Question 5

Which of the following items is not a component of a complete search system?

Select one:

1. Document cache
2. Indexers
3. Spell correction
4. Horizontal index

Question 6

Which of the following is NOT one of the types of queries in a complete search system discussed in our text?

Select one:

1. Wildcard Query
2. Boolean retrieval
3. Phrase Query
4. Ranked retrieval Query

Question 7

Considering only documents containing terms whose idf exceeds a preset threshold is an index elimination.

Select one:

True  
False

Question 8

A scoring function that computes an aggregate of a document's relevance from multiple sources is called evidence accumulation.

Select one:

True  
False

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A scheme where a weight is assigned to a term based upon the number of occurrences of the term within a document is called:

Select one:

- a. Bag of Words
- b. Document Frequency
- c. Term Frequency
- d. Optimal weight

The correct answer is: Term Frequency

Question 2

Question text

A group of related documents against which information retrieval is employed is called:

Select one:

- a. Corpus
- b. Text Database
- c. Index Collection
- d. Repository

The correct answer is: Corpus

#### Question 3

Question text

Weighted zone scoring is referred to as:

Select one:

- a. ranked Boolean retrieval
- b. Zipf retrieval
- c. Ad Hoc query retrieval
- d. Jaccard retrieval

The correct answer is: ranked Boolean retrieval

#### Question 4

Question text

An approach to compression that takes advantage of the redundancy in the dictionary that results from common prefixes that come from sorted terms is called:

Select one:

- a. Front Coding
- b. Blocked storage
- c. Prefix Coding
- d. Variable byte encoding

The correct answer is: Front Coding

#### Question 5

Question text

True/False: Given two strings  $s_1$  and  $s_2$ , the edit distance between them is sometimes known as the Levenshtein distance.

Select one:

- True
- False

The correct answer is 'True'.

#### Question 6

Question text

True/False: Ad hoc retrieval is a model of information retrieval in which we can pose any query in which search terms are combined with the operators AND, OR, and NOT.

Select one:

- True
- False

The correct answer is 'False'.

#### Question 7

Question text

True/False: An advantage of compression is that it reduces the transfer of data from disk to memory.

Select one:

True

False

The correct answer is 'True'.

Question 8

Question text

True/False: The process where multiple lists are evaluated using AND or OR operators in a Boolean retrieval query is called an intersection operation.

Select one:

True

False

The correct answer is 'True'.

Question 9

Question text

For a small collection of documents on a personal computer that don't experience any change the most appropriate indexing algorithm would be:

Select one:

a. Block sort-based indexing algorithm

b. Single-pass in memory indexing algorithm

c. Distributed Map-Reduce indexing algorithm

d. Dynamic indexing process employing an auxiliary index

The correct answer is: Block sort-based indexing algorithm

Question 10

Question text

True/False: The number of documents within a collection that contain a particular term is the collection frequency of the term.

Select one:

True

False

The correct answer is 'False'.

Question 11

Question text

The number of times that a word or term occurs in a document is called the:

Select one:

a. Proximity Operator

b. Vocabulary Lexicon

c. Term Frequency

d. Indexing

e. Granularity

The correct answer is: Term Frequency

## Question 12

## Question text

True/False: In the bag of words model, the exact ordering of terms within the document is not relevant to processing.

Select one:

True

False

The correct answer is 'True'.

## Question 13

## Question text

True/False: The Jaccard algorithm is a technique for context sensitive spelling correction.

Select one:

True

False

The correct answer is 'False'.

## Question 14

## Question text

True/False: Precision in an information retrieval system refers to the fraction of relevant documents in the collection that were returned by the system.

Select one:

True

False

The correct answer is 'True'.

## Question 15

## Question text

True/False: The purpose of the inverse document frequency is to increase the weight of terms with high collection frequency.

Select one:

True

False

The correct answer is 'False'.

## Question 16

## Question text

In information retrieval, extremely common words which would appear to be of little value in helping select documents that are excluded from the index vocabulary are called:

Select one:

a. Stop Words

b. Tokens

c. Lemmatized Words

d. Stemmed Terms

The correct answer is: Stop Words

## Question 17

## Question text

A process that reduces the size of a vocabulary by reducing to the 'root' of words is called:

Select one:

- a. Stemming
- b. Lemmatizing
- c. Removal of stop words
- d. Posting
- e. pruning

The correct answer is: Stemming

## Question 18

## Question text

A compression algorithm that results in some loss of data is called:

Select one:

- a. zipf compression
- b. dictionary compression
- c. lossless compression
- d. lossy compression

The correct answer is: lossy compression

## Question 19

## Question text

Which of the following is NOT a benefit of index compression?

Select one:

- a. Simplified algorithm design
- b. Reduction of disk space
- c. Faster transfer of data from disk to memory
- d. Increased Use of caching

The correct answer is: Simplified algorithm design

## Question 20

## Question text

True/False: tf-idf weight is a metric derived by taking the log of N divided by the document frequency where N is the total number of documents in a collection.

Select one:

- True
- False

The correct answer is 'False'.

## Question 21

## Question text

True/False: Vector similarity is a measure of similarity between two vectors which is determined by measuring the angle between them.

Select one:



True

False

The correct answer is 'False'.

#### Question 22

Question text

True/False: Heap's law is the formula used to estimate the vocabulary size of a collection is.

Select one:

True

False

The correct answer is 'True'.

To evaluate the effectiveness of an IR system the output from a standard query executed against the test IR system is compared with the known output from a:

Select one:

a. internet collection

b. reference book

c. separate IR system.

d. standard test collection

The correct answer is: standard test collection

#### Question 2

Question text

Precision is the fraction of retrieved documents that are relevant.

Select one:

True

False

The correct answer is 'True'.

#### Question 3

Question text

Recall is the fraction of non relevant documents that are retrieved.

Select one:

True

False

The correct answer is 'False'.

#### Question 4

Question text

Accuracy is typically the most accurate measure of IR system effectiveness.

Select one:

True

False

The correct answer is 'False'.

#### Question 5

Question text

The F-measure is a single measure that balances precision versus recall.

Select one:

True

False

The correct answer is 'True'.

#### Question 6

Question text

The purpose of the inverse document frequency is to increase the weight of terms with high collection frequency.

Select one:

True

False

The correct answer is 'False'.

#### Question 7

Question text

The standard approach to information retrieval system evaluation involves around the notion of:

Select one:

a. Quantity of documents in the collection

b. Relevant and non relevant documents.

c. Accuracy

d. user happiness

The correct answer is: Relevant and non relevant documents.

A web server communicates with a client (browser) using which protocol:

Select one:

a. HTML

b. HTTP

c. FTP

d. Telnet

The correct answer is: HTTP

#### Question 2

Question text

The basic operation of a web browser is to pass a request to the web server. This request is an address for a web page and is known as the:

Select one:

a. UAL: Universal Address Locator

b. HTML: Hypertext Markup Language

c. URL: Universal Resource Locator

d. HTTP: Hypertext transfer protocol

The correct answer is: URL: Universal Resource Locator

#### Question 3

Question text

A web page whose content doesn't vary from one request to another is called a:

Select one:

- a. Text Page
- b. Dynamic Page
- c. Active Server Page
- d. Static Page

The correct answer is: Static Page

#### Question 4

##### Question text

A web link within a web page that references another part of the same page is called a:

Select one:

- a. Out link
- b. Vector
- c. In link
- d. Tendril

The correct answer is: In link

#### Question 5

##### Question text

In the context of web search engines the manipulation of web page content for the purpose of appearing high up in search results for selected query terms is called:

Select one:

- a. Paid inclusion
- b. SPAM
- c. SEO
- d. Link Analysis

The correct answer is: SPAM

#### Question 6

##### Question text

Results from a search engine that are based upon the retrieval of items using a method of term weighting such as cosine similarity is a form of:

Select one:

- a. Sponsored Search
- b. Algorithmic Search
- c. Informational Search
- d. Navigational Search

The correct answer is: Algorithmic Search

#### Question 7

##### Question text

A program that captures and indexes content from web pages is known as what insect:

Select one:

- a. Fly
- b. Centipede
- c. Mosquito
- d. Spider

The correct answer is: Spider

## Question 8

## Question text

The list of web pages that a web crawler has queued up to index is called the:

Select one:

- a. Web Page Queue
- b. Seed set
- c. URL Filter
- d. URL Frontier

The correct answer is: URL Frontier

## Question 9

## Question text

In order to access a particular web site in the internet, the URL must be converted into an IP address. Which service does this conversion?

Select one:

- a. HTTP
- b. TNS
- c. DNS
- d. DHCP

The correct answer is: DNS

A model of information retrieval in which we can pose any query in which search terms are combined with the operators AND, OR, and NOT:

Select one:

- a. Ad Hoc Retrieval
- b. Ranked Retrieval Model
- c. Boolean Information Model
- d. Proximity Query Model

The correct answer is: Boolean Information Model

## Question 2

## Question text

A data structure that maps terms back to the parts of a document in which they occur is called an (select the best answer):

Select one:

- a. Postings list
- b. Incidence Matrix
- c. Dictionary
- d. Inverted Index

The correct answer is: Inverted Index

## Question 3

## Question text

A process to efficiently intersect lists to be able to quickly find documents that contain both terms is referred to as merging postings lists.

Select one:

True

False

The correct answer is 'True'.

#### Question 4

Question text

The model of information retrieval in which we can pose any query in the form of a Boolean expression is called the ranked retrieval model.

Select one:

True

False

The correct answer is 'False'.

#### Question 5

Question text

The number of times that a word or term occurs in a document is called the:

Select one:

a. Proximity Operator

b. Vocabulary Lexicon

c. Term Frequency

d. Indexing Granularity

The correct answer is: Term Frequency

#### Question 6

Question text

Stemming increases the size of the vocabulary.

Select one:

True

False

The correct answer is 'False'.

#### Question 7

Question text

In information retrieval, extremely common words which would appear to be of little value in helping select documents that are excluded from the index vocabulary are called:

Select one:

a. Stop Words

b. Tokens

c. Lemmatized Words

d. Stemmed Terms

The correct answer is: Stop Words

#### Question 8

Question text

A crude heuristic process that chops off the ends of the words to reduce inflectional forms of words and reduce the size of the vocabulary is called:

Select one:

- a. Lemmatization
- b. Case Folding
- c. True casing
- d. Stemming

The correct answer is: Stemming

#### Question 9

##### Question text

An advantage of a positional index is that it reduces the asymptotic complexity of a postings intersection operation.

Select one:

- True
- False

The correct answer is 'False'.

#### Question 10

##### Question text

An index that includes sequences of words or terms of variable length that have been extracted from a source document is called a:

Select one:

- a. Phrase Index
- b. Biword index
- c. Positional index
- d. Inverted Index

The correct answer is: Phrase Index

One disadvantage, as outlined in our text, of using a permuterm index for wild card queries is:

Select one:

- a. It requires complex code that is difficult to maintain
  - b. It has the risk of key collisions which are difficult to resolve
  - c. The required rotations creates a very large dictionary
  - d. It cannot be used to find terms that are not spelled correctly
- The correct answer is: The required rotations creates a very large dictionary

#### Question 2

##### Question text

Which of the following is a technique for context sensitive spelling correction:

Select one:

- a. the Jaccard Coefficient
- b. Soundex algorithms
- c. k-gram indexes
- d. Levenshtein distance

The correct answer is: Soundex algorithms

#### Question 3

##### Question text

For a very large collection of books of classic literature the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Distributed Map-Reduce indexing algorithm

#### Question 4

Question text

For a large collection of documents such as the internet that experience frequent change the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Dynamic indexing process employing an auxiliary index

#### Question 5

Question text

Given two strings  $s_1$  and  $s_2$ , the edit distance between them is sometimes known as the:

Select one:

- a. Levenshtein distance
- b. isolated-term distance
- c. k-gram overlap
- d. Jaccard Coefficient

The correct answer is: Levenshtein distance

#### Question 6

Question text

For a moderately large collection of static documents maintained on a single system the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Single-pass in memory indexing algorithm

#### Question 7

Question text

For a small collection of documents on a personal computer that don't experience any change the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm

d. Dynamic indexing process employing an auxiliary index  
The correct answer is: Block sort-based indexing algorithm

#### Question 8

Question text

Hashing is a process where an item is reduced, through a mathematical process, to an integer.

Select one:

True

False

The correct answer is 'True'.

#### Question 9

Question text

The size of the document collection that can be indexed by single-pass in-memory indexing algorithm is limited by the size of the disk storage the computer running the indexer process has access to.

Select one:

True

False

The correct answer is 'False'.

The formula used to estimate the vocabulary size of a collection is known as:

Select one:

a. Zipf's law

b. Power law

c. Heap's law

d. Compression ratio

The correct answer is: Heap's law

#### Question 2

Question text

Which of the following is NOT a benefit of index compression?

Select one:

a. Simplified algorithm design

b. Reduction of disk space

c. Faster transfer of data from disk to memory

d. Increased Use of caching

The correct answer is: Simplified algorithm design

#### Question 3

Question text

A compression algorithm that results in some loss of data is called:

Select one:

a. zipf compression

b. dictionary compression

c. lossless compression

d. lossy compression

The correct answer is: lossy compression



## Question 4

## Question text

An approach to compression that takes advantage of the redundancy in the dictionary that results from common prefixes that come from sorted terms is called:

Select one:

- a. Front Coding
- b. Blocked storage
- c. Prefix Coding
- d. Variable byte encoding

The correct answer is: Front Coding

## Question 5

## Question text

A disadvantage of compression is that it reduces the transfer of data from disk to memory.

Select one:

- True
- False

The correct answer is 'False'.

## Question 6

## Question text

The 30 most common words account for 30% of the tokens in written text is known as front coding.

Select one:

- True
- False

The correct answer is 'False'.

Weighted zone scoring is sometimes referred to as ranked Boolean retrieval.

Select one:

- True
- False

The correct answer is 'True'.

## Question 2

## Question text

In the bag of words model, the exact ordering of terms within the document is both significant and relevant to processing.

Select one:

- True
- False

The correct answer is 'True'.

## Question 3

## Question text

The purpose of the inverse document frequency is to increase the weight of terms with high

collection frequency.

Select one:

True

False

The correct answer is 'False'.

#### Question 4

Question text

A scheme where a weight is assigned to a term based upon the number of occurrences of the term within a document is called:

Select one:

a. Bag of Words

b. Document Frequency

c. Term Frequency

d. Optimal weight

The correct answer is: Term Frequency

#### Question 5

Question text

The number of documents within a collection that contain a particular term is the collection frequency of the term.

Select one:

True

False

The correct answer is 'False'.

#### Question 6

Question text

A metric derived by taking the log of N divided by the document frequency where N is the total number of documents in a collection is called:

Select one:

a. document frequency

b. tf-idf weight

c. collection frequency

d. inverse document frequency

The correct answer is: inverse document frequency

#### Question 7

Question text

The tf-idf weight is highest when a term t occurs many times within a small number of documents.

Select one:

True

False

The correct answer is 'True'.

#### Question 8

Question text

The tf-idf weight is lower when a term  $t$  occurs many times in a document or occurs in relatively few documents.

Select one:

True

False

The correct answer is 'False'.

Question 9

Question text

A measure of similarity between two vectors which is determined by measuring the angle between them is called:

Select one:

a. cosine similarity

b. sin similarity

c. vector similarity

d. vector scoring

The correct answer is: cosine similarity

Question 10

Question text

An index that is often supplemental to the inverted index and contains terms from only a particular field or section of a document is called a parametric index.

Select one:

True

False

The correct answer is 'True'.

An approach to retrieval in a search that is likely (but not precisely) to produce the top  $K$  scoring documents is called:

Select one:

a. Exact top  $K$  document retrieval

b. top scoring document retrieval

c. Inexact top  $K$  document retrieval

d. Imprecise top  $K$  document retrieval

The correct answer is: Inexact top  $K$  document retrieval

Question 2

Question text

An approach to computing scores in an IR system that pre-computes for each term in the dictionary, the set of documents with the highest weights for the term is:

Select one:

a. Champion list

b. Impact ordering

c. Cluster pruning

d. Tiered indexes

The correct answer is: Champion list

Question 3

## Question text

An approach to computing scores in an IR system that orders documents in the posting list of a term by decreasing order of term frequency is called:

Select one:

- a. Champion list
- b. Impact ordering
- c. Cluster pruning
- d. Tiered indexes

The correct answer is: Impact ordering

## Question 4

## Question text

An approach to computing scores in an IR system that selects a sample of documents randomly from the collection as leaders which are in the index and links similar documents to it (followers) is called:

Select one:

- a. Champion list
- b. Impact ordering
- c. Cluster pruning
- d. Tiered indexes

The correct answer is: Cluster pruning

## Question 5

## Question text

Which of the following items is not a component of a complete search system?

Select one:

- a. Document cache
- b. Indexers
- c. Spell correction
- d. Horizontal index

The correct answer is: Horizontal index

## Question 6

## Question text

Which of the following is NOT one of the types of queries in a complete search system discussed in our text?

Select one:

- a. Wildcard Query
- b. Boolean retrieval
- c. Phrase Query
- d. Ranked retrieval Query

The correct answer is: Ranked retrieval Query

## Question 7

## Question text

Considering only documents containing terms whose idf exceeds a preset threshold is an index

elimination.

Select one:

True

False

The correct answer is 'True'.

#### Question 8

##### Question text

A scoring function that computes an aggregate of a document's relevance from multiple sources is called evidence accumulation.

Select one:

True

False

The correct answer is 'True'.

An approach to computing scores in an IR system that orders documents in the posting list of a term by decreasing order of term frequency is called:

Select one:

a. Champion list

b. Impact ordering

c. Cluster pruning

d. Tiered indexes

The correct answer is: Impact ordering

#### Question 2

##### Question text

An approach to computing scores in an IR system that selects a sample of documents randomly from the collection as leaders which are in the index and links similar documents to it (followers) is called:

Select one:

a. Champion list

b. Impact ordering

c. Cluster pruning

d. Tiered indexes

The correct answer is: Cluster pruning

#### Question 3

##### Question text

Precision is the fraction of retrieved documents that are relevant.

Select one:

True

False

The correct answer is 'True'.

#### Question 4

##### Question text

A scoring function that computes an aggregate of a document's relevance from multiple sources is called evidence accumulation.

Select one:

True

False

The correct answer is 'True'.

Question 5

Question text

The size of the document collection that can be indexed by single-pass in-memory indexing algorithm is limited by the size of the disk storage the computer running the indexer process has access to.

Select one:

True

False

The correct answer is 'False'.

Question 6

Question text

A program that captures and indexes content from web pages is known as what insect:

Select one:

a. Fly

b. Centipede

c. Mosquito

d. Spider

The correct answer is: Spider

Question 7

Question text

A web link within a web page that references another part of the same page is called a:

Select one:

a. Out link

b. Vector

c. In link

d. Tendril

The correct answer is: In link

Question 8

Question text

A data structure that maps terms back to the parts of a document in which they occur is called an (select the best answer):

Select one:

a. Postings list

b. Incidence Matrix

c. Dictionary

d. Inverted Index

The correct answer is: Inverted Index

Question 9

Question text

A process to efficiently intersect lists to be able to quickly find documents that contain both terms is referred to as merging postings lists.

Select one:

True

False

The correct answer is 'True'.

## Question 10

## Question text

Which of the following items is not a component of a complete search system?

Select one:

- a. Document cache
- b. Indexers
- c. Spell correction
- d. Horizontal index

The correct answer is: Horizontal index

## Question 11

## Question text

An index that is often supplemental to the inverted index and contains terms from only a particular field or section of a document is called a parametric index.

Select one:

- True
- False

The correct answer is 'True'.

## Question 12

## Question text

A model of information retrieval in which we can pose any query in which search terms are combined with the operators AND, OR, and NOT:

Select one:

- a. Ad Hoc Retrieval
- b. Ranked Retrieval Model
- c. Boolean Information Model
- d. Proximity Query Model

The correct answer is: Boolean Information Model

## Question 13

## Question text

An approach to compression that takes advantage of the redundancy in the dictionary that results from common prefixes that come from sorted terms is called:

Select one:

- a. Front Coding
- b. Blocked storage
- c. Prefix Coding
- d. Variable byte encoding

The correct answer is: Front Coding

## Question 14

## Question text

Results from a search engine that are based upon the retrieval of items using a method of term weighting such as cosine similarity is a form of:

Select one:

- a. Sponsored Search
- b. Algorithmic Search
- c. Informational Search
- d. Navigational Search

The correct answer is: Algorithmic Search

Question 15

Question text

A web page whose content doesn't vary from one request to another is called a:

Select one:

- a. Text Page
- b. Dynamic Page
- c. Active Server Page
- d. Static Page

The correct answer is: Static Page

Question 16

Question text

An approach to retrieval in a search that is likely (but not precisely) to produce the top K scoring documents is called:

Select one:

- a. Exact top K document retrieval
- b. top scoring document retrieval
- c. Inexact top K document retrieval
- d. Imprecise top K document retrieval

The correct answer is: Inexact top K document retrieval

Question 17

Question text

To evaluate the effectiveness of an IR system the output from a standard query executed against the test IR system is compared with the known output from a:

Select one:

- a. internet collection
- b. reference book
- c. separate IR system.
- d. standard test collection

The correct answer is: standard test collection

Question 18

Question text

Stemming increases the size of the vocabulary.

Select one:

- True
- False

The correct answer is 'False'.

Question 19

Question text

Python programming language you can't learn in 2021

True

False

The correct answer is 'False'.

Question 20

Question text



The purpose of the inverse document frequency is to increase the weight of terms with high collection frequency.

Select one:

True

False

The correct answer is 'False'.

Question 21

Question text

A disadvantage of compression is that it reduces the transfer of data from disk to memory.

Select one:

True

False

The correct answer is 'False'.

Question 22

Question text

The number of documents within a collection that contain a particular term is the collection frequency of the term.

Select one:

True

False

The correct answer is 'False'.

Question 23

Question text

For a moderately large collection of static documents maintained on a single system the most appropriate indexing algorithm would be:

Select one:

a. Block sort-based indexing algorithm

b. Single-pass in memory indexing algorithm

c. Distributed Map-Reduce indexing algorithm

d. Dynamic indexing process employing an auxiliary index

The correct answer is: Single-pass in memory indexing algorithm

Question 24

Question text

In order to access a particular web site in the internet, the URL must be converted into an IP address. Which service does this conversion?

Select one:

a. HTTP

b. TNS

c. DNS

d. DHCP

The correct answer is: DNS

Question 25

Question text

An index that includes sequences of words or terms of variable length that have been extracted from a source document is called a:

Select one:

- a. Phrase Index
- b. Biword index
- c. Positional index
- d. Inverted Index

The correct answer is: Phrase Index

Question 26

Question text

The number of times that a word or term occurs in a document is called the:

Select one:

- a. Proximity Operator
- b. Vocabulary Lexicon
- c. Term Frequency
- d. Indexing Granularity

The correct answer is: Term Frequency

Question 27

Question text

The model of information retrieval in which we can pose any query in the form of a Boolean expression is called the ranked retrieval model.

Select one:

- True
- False

The correct answer is 'False'.

Question 28

Question text

In information retrieval, extremely common words which would appear to be of little value in helping select documents that are excluded from the index vocabulary are called:

Select one:

- a. Stop Words
- b. Tokens
- c. Lemmatized Words
- d. Stemmed Terms

The correct answer is: Stop Words

Question 29

Question text

The formula used to estimate the vocabulary size of a collection is known as:

Select one:

- a. Zipf's law
- b. Power law
- c. Heap's law
- d. Compression ratio

The correct answer is: Heap's law

Question 30

Question text

The tf-idf weight is lower when a term  $t$  occurs many times in a document or occurs in relatively few documents.

Select one:

True

False

The correct answer is 'False'.

Question 31

Question text

Which

- b. Reduction of disk space
- c. Faster transfer of data from disk to memory
- d. Increased Use of caching

The correct answer is: Simplified algorithm design

Question 32

Question text

Given two strings s1 and s2, the edit distance between them is sometimes known as the:

Select one:

- a. Levenshtein distance
  - b. isolated-term distance
  - c. k-gram overlap
  - d. Jaccard Coefficient
- The correct answer is: Levenshtein distance

Question indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

A web server communicates with a client (browser) using which protocol:

Select one:

- a. HTML
- b. HTTP
- c. FTP
- d. Telnet

The correct answer is: HTTP

Question 35

Question text

An approach to computing scores in an IR system that pre-computes for each term in the dictionary, the set of documents with the highest weights for the term is:

Select one:

- a. Champion list
- b. Impact ordering
- c. Cluster pruning
- d. Tiered indexes

The correct answer is: Champion list

Question 36

Question text

The purpose of the inverse document frequency is to increase the weight of terms with high collection frequency.

Select one:

True

False

The correct answer is 'False'.

Question 37

Question text

Accuracy is typically the most accurate measure of IR system effectiveness.

Select one:

True

False

The correct answer is 'False'.

Question 38

Question text

In the context of web search engines the manipulation of web page content for the purpose of appearing high up in search results for selected query terms is called:

Select one:

a. Paid inclusion

b. SPAM

c. SEO

d. Link Analysis

The correct answer is: SPAM

Question 39

Question text

Considering only documents containing terms whose idf exceeds a preset threshold is an index elimination.

Select one:

True

False

The correct answer is 'True'.

Question 40

Question text

The list of web pages that a web crawler has queued up to index is called the:

Select one:

a. Web Page Queue

b. Seed set

c. URL Filter

d. URL Frontier

The correct answer is: URL Frontier

Question 41

Question text

Hashing is a process where an item is reduced, through a mathematical process, to an integer.

Select one:

True

False

The correct answer is 'True'.

## Question 42

Question text

Which of the following is a technique for context sensitive spelling correction:

Select one:

- a. the Jaccard Coefficient
  - b. Soundex algorithms
  - c. k-gram indexes
  - d. Levenshtein distance
- The correct answer is: Soundex algorithms

## Question 43

Question text

The standard approach to information retrieval system evaluation involves around the notion of:

Select one:

- a. Quantity of documents in the collection
- b. Relevant and non relevant documents.
- c. Accuracy
- d. user happiness

The correct answer is: Relevant and non relevant documents.

## Question 44

Question text

Recall is the fraction of non relevant documents that are retrieved.

Select one:

- True
- False

The correct answer is 'False'.

## Question 45

Question text

The basic operation of a web browser is to pass a request to the web server. This request is an address for a web page and is known as the:

Select one:

- a. UAL: Universal Address Locator
  - b. HTML: Hypertext Markup Language
  - c. URL: Universal Resource Locator
  - d. HTTP: Hypertext transfer protocol
- The correct answer is: URL: Universal Resource Locator

## Question 46

Question text

For a small collection of documents on a personal computer that don't experience any change the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Block sort-based indexing algorithm

## Question 47

Question text

A compression algorithm that results in some loss of data is called:

Select one:

- a. zipf compression
- b. dictionary compression
- c. lossless compression
- d. lossy compression

The correct answer is: lossy compression

Question 48

Question text

The F-measure is a single measure that balances precision versus recall.

Select one:

- True
- False

The correct answer is 'True'.

Question 49

Question text

Weighted zone scoring is sometimes referred to as ranked Boolean retrieval.

Select one:

- True
- False

The correct answer is 'True'.

Question 50

Question text

For a large collection of documents such as the internet that experience frequent change the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Dynamic indexing process employing an auxiliary index

Question 51

Question text

The tf-idf weight is highest when a term  $t$  occurs many times within a small number of documents.

Select one:

- True
- False

The correct answer is 'True'.

Question 52

Question text

An advantage of a positional index is that it reduces the asymptotic complexity of a postings intersection operation.

Select one:

- True
- False

The correct answer is 'False'.

Question 53

Question text

One disadvantage, as outlined in our text, of using a permuterm index for wild card queries is:

Select one:

- a. It requires complex code that is difficult to maintain
- b. It has the risk of key collisions which are difficult to resolve
- c. The required rotations creates a very large dictionary
- d. It cannot be used to find terms that are not spelled correctly

The correct answer is: The required rotations creates a very large dictionary

Question 54

Question text

A metric derived by taking the log of N divided by the document frequency where N is the total number of documents in a collection is called:

Select one:

- a. document frequency
- b. tf-idf weight
- c. collection frequency
- d. inverse document frequency

The correct answer is: inverse document frequency

Question 55

Question text

In the bag of words model, the exact ordering of terms within the document is both significant and relevant to processing.

Select one:

- True
- False

The correct answer is 'True'.

Question 56

Question text

A crude heuristic process that chops off the ends of the words to reduce inflectional forms of words and reduce the size of the vocabulary is called:

Select one:

- a. Lemmatization
- b. Case Folding
- c. True casing
- d. Stemming

The correct answer is: Stemming

Question 57

Question text

A scheme where a weight is assigned to a term based upon the number of occurrences of the term within a document is called:

Select one:

- a. Bag of Words
- b. Document Frequency
- c. Term Frequency

d. Optimal weight

The correct answer is: Term Frequency

Question 58

Question text

Which of the following is NOT one of the types of queries in a complete search system discussed in our text?

Select one:

- a. Wildcard Query
- b. Boolean retrieval
- c. Phrase Query
- d. Ranked retrieval Query

The correct answer is: Ranked retrieval Query

Question 59

Question text

A measure of similarity between two vectors which is determined by measuring the angle between them is called:

Select one:

- a. cosine similarity
- b. sin similarity
- c. vector similarity
- d. vector scoring

The correct answer is: cosine similarity

For a small collection of documents on a personal computer that don't experience any change the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Block sort-based indexing algorithm

Question 2

Question text

Considering only documents containing terms whose idf exceeds a preset threshold is an index elimination.

Select one:

- True
- False

The correct answer is 'True'.

Question 3

Question text

The size of the document collection that can be indexed by single-pass in-memory indexing algorithm is limited by the size of the disk storage the computer running the indexer process has access to.

Select one:

- True
- False

The correct answer is 'False'.



## Question 4

## Question text

An index that includes sequences of words or terms of variable length that have been extracted from a source document is called a:

Select one:

- a. Phrase Index
- b. Biword index
- c. Positional index
- d. Inverted Index

The correct answer is: Phrase Index

## Question 5

## Question text

Recall is the fraction of non relevant documents that are retrieved.

Select one:

- True
- False

The correct answer is 'False'.

## Question 6

## Question text

In order to access a particular web site in the internet, the URL must be converted into an IP address. Which service does this conversion?

Select one:

- a. HTTP
- b. TNS
- c. DNS
- d. DHCP

The correct answer is: DNS

## Question 7

## Question text

A program that captures and indexes content from web pages is known as what insect:

Select one:

- a. Fly
- b. Centipede
- c. Mosquito
- d. Spider

The correct answer is: Spider

## Question 8

## Question text

In information retrieval, extremely common words which would appear to be of little value in helping select documents that are excluded from the index vocabulary are called:

Select one:

- a. Stop Words
- b. Tokens
- c. Lemmatized Words
- d. Stemmed Terms

The correct answer is: Stop Words

## Question 9

## Question text

A scoring function that computes an aggregate of a document's relevance from multiple sources is called evidence accumulation.

Select one:

True

False

The correct answer is 'True'.

## Question 10

## Question text

Weighted zone scoring is sometimes referred to as ranked Boolean retrieval.

Select one:

True

False

The correct answer is 'True'.

## Question 11

## Question text

The purpose of the inverse document frequency is to increase the weight of terms with high collection frequency.

Select one:

True

False

The correct answer is 'False'.

## Question 12

## Question text

The model of information retrieval in which we can pose any query in the form of a Boolean expression is called the ranked retrieval model.

Select one:

True

False

The correct answer is 'False'.

## Question 13

## Question text

The number of times that a word or term occurs in a document is called the:

Select one:

a. Proximity Operator

b. Vocabulary Lexicon

c. Term Frequency

d. Indexing Granularity

The correct answer is: Term Frequency

## Question 14

## Question text

An approach to compression that takes advantage of the redundancy in the dictionary that results from common prefixes that come from sorted terms is called:

Select one:

- a. Front Coding
  - b. Blocked storage
  - c. Prefix Coding
  - d. Variable byte encoding
- The correct answer is: Front Coding

Question 15

Question text

In the context of web search engines the manipulation

Select one:

- a. Paid inclusion
- b. SPAM
- c. SEO
- d. Link Analysis

The correct answer is: SPAM

Question 16

Question text

A crude heuristic process that chops off the ends of the words to reduce inflectional forms of words and reduce the size of the vocabulary is called:

Select one:

- a. Lemmatization
- b. Case Folding
- c. True casing
- d. Stemming

The correct answer is: Stemming

Question 17

Question text

The F-measure is a single measure that balances precision versus recall.

Select one:

- True
- False

The correct answer is 'True'.

Question 18

Question text

Stemming increases the size of the vocabulary.

Select one:

- True
- False

The correct answer is 'False'.

Question 19

Question text

For a moderately large collection of static documents maintained on a single system the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm

d. Dynamic indexing process employing an auxiliary index

The correct answer is: Single-pass in memory indexing algorithm

Question 20

Question text

Results from a search engine that are based upon the retrieval of items using a method of term weighting such as cosine similarity is a form of:

Select one:

- a. Sponsored Search
- b. Algorithmic Search
- c. Informational Search
- d. Navigational Search

The correct answer is: Algorithmic Search

Question 21

Question text

Given two strings s1 and s2, the edit distance between them is sometimes known as the:

Select one:

- a. Levenshtein distance
- b. isolated-term distance
- c. k-gram overlap
- d. Jaccard Coefficient

The correct answer is: Levenshtein distance

Question 22

Question text

A web link within a web page that references another part of the same page is called a:

Select one:

- a. Out link
- b. Vector
- c. In link
- d. Tendril

The correct answer is: In link

Question 23

Question text

In the bag of words model, the exact ordering of terms within the document is both significant and relevant to processing.

Select one:

True

False

The correct answer is 'True'.

Question 24

Question text

A data structure that maps terms back to the parts of a document in which they occur is called an (select the best answer):

Select one:

- a. Postings list
- b. Incidence Matrix
- c. Dictionary

d. Inverted Index

The correct answer is: Inverted Index

Question 25

Question text

A disadvantage of compression is that it reduces the transfer of data from disk to memory.

Select one:

True

False

The correct answer is 'False'.

Question 26

Question text

A process to efficiently intersect lists to be able to quickly find documents that contain both terms is referred to as merging postings lists.

Select one:

True

False

The correct answer pre-computes for each term in the dictionary, the set of documents with the highest weights for the term is:

Select one:

a. Champion list

b. Impact ordering

c. Cluster pruning

d. Tiered indexes

The correct answer is: Champion list

Question 28

Question text

Accuracy is typically the most accurate measure of IR system effectiveness.

Select one:

True

False

The correct answer is 'False'.

Question 29

Question text

The list of web pages that a web crawler has queued up to index is called

The correct answer is: URL Frontier

Question 30

Question text

Which of the following is a technique for context sensitive spelling correction:

Select one:

a. the Jaccard Coefficient

b. Soundex algorithms

c. k-gram indexes

d. Levenshtein distance

The correct answer is: Soundex algorithms

Question 31

Question text

One disadvantage, as outlined in our text, of using a permuterm index for wild card queries is:

Select one:

- a. It requires complex code that is difficult to maintain
- b. It is very large dictionary
- c. The required rotations creates a very large dictionary
- d. It cannot be used to find terms that are not spelled correctly

The correct answer is: The required rotations creates a very large dictionary

Question 32

Question text

A metric derived by taking the log of N divided by the document frequency where N is the total number of documents in a collection is called:

Select one:

- a. document frequency
- b. tf-idf weight
- c. collection frequency
- d. inverse document frequency

The correct answer is: inverse document frequency

Question 33

Question text

For a very large collection of books of classic literature the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Distributed Map-Reduce indexing algorithm

Question 34

Question text

The tf-idf weight is highest when a term t occurs many times within a small number of documents.

Select one:

- True
- False

The correct answer is 'True'.

Question 35

Question text

A model of information retrieval in which we can pose any query in which search terms are combined with the operators AND, OR, and NOT:

Select one:

- a. Ad Hoc Retrieval
- b. Ranked Retrieval Model
- c. Boolean Information Model
- d. Proximity Query Model

The correct answer is: Boolean Information Model

Question 36

Question text

A compression algorithm that results in some loss of data is called:

Select one:

- a. zipf compression
- b. dictionary compression
- c. lossless compression
- d. lossy compression

The correct answer is: lossy compression

Question 37

Question text

An advantage of a positional index is that it reduces the asymptotic complexity of a postings intersection operation.

Select one:

- True
- False

The correct answer is 'False'.

Question 38

Question text

Precision is the fraction of retrieved documents that are relevant.

Select one:

- True
- False

The correct answer is 'True'.

Question 39

Question text

The standard approach to information retrieval system evaluation involves around the notion of:

Select one:

- a. Quantity of documents in the collection
- b. Relevant and non relevant documents.
- c. Accuracy
- d. user happiness

The correct answer is: Relevant and non relevant documents.

Question 40

Question text

The formula used to estimate the vocabulary size of a collection is known as:

Select one:

- a. Zipf's law
- b. Power law
- c. Heap's law
- d. Compression ratio

The correct answer is: Heap's law

Question 41

Question text

The basic operation of a web browser is to pass a request to the web server. This request is an address for a web page and is known as the:

Select one:

- a. UAL: Universal Address Locator
  - b. HTML: Hypertext Markup Language
  - c. URL: Universal Resource Locator
  - d. HTTP: Hypertext transfer protocol
- The correct answer is: URL: Universal Resource Locator

Question 42

Question text

The tf-idf weight is lower when a term  $t$  occurs many times in a document or occurs in relatively few documents.

Select one:

True

False

The correct answer is 'False'.

Question 43

Question text

Which of the following is NOT a benefit of index compression?

Select one:

- a. Simplified algorithm design
- b. Reduction of disk space
- c. Faster transfer of data from disk to memory
- d. Increased Use of caching

The correct answer is: Simplified algorithm design

Question 44

Question text

An approach to computing scores in an IR system that selects a sample of documents randomly from the collection as leaders which are in the index and links similar documents to it (followers) is called:

Select one:

- a. Champion list
- b. Impact ordering
- c. Cluster pruning
- d. Tiered indexes

The correct answer is: Cluster pruning

Question 45

Question text

To evaluate the effectiveness of an IR system the output from a standard query executed against the test IR system is compared with the known output from a:

Select one:

- a. internet collection
- b. reference book
- c. separate IR system.
- d. standard test collection

The correct answer is: standard test collection

Question 46

Question text

The 30 most common words account for 30% of the tokens in written text is known as front



coding.

Select one:

True

False

The correct answer is 'False'.

Question 47

Question text

The purpose of the inverse document frequency is to increase the weight of terms with high collection frequency.

Select one:

True

False

The correct answer is 'False'.

Question 48

Question text

The number of documents within a collection that contain a particular term is the collection frequency of the term.

Select one:

True

False

The correct answer is 'False'.

Question 49

Question text

A scheme where a weight is assigned to a term based upon the number of occurrences of the term within a document is called:

Select one:

a. Bag of Words

b. Document Frequency

c. Term Frequency

d. Optimal weight

The correct answer is: Term Frequency

Question 50

Question text

Hashing is a process where an item is reduced, through a mathematical process, to an integer.

Select one:

True

False

The correct answer is 'True'.

Question 51

Question text

An index that is often supplemental to the inverted index and contains terms from only a particular field or section of a document is called a parametric index.

Select one:

True

False

The correct answer is 'True'.

## Question 52

## Question text

An approach to retrieval in a search that is likely (but not precisely) to produce the top K scoring documents is called:

Select one:

- a. Exact top K document retrieval
- b. top scoring document retrieval
- c. Inexact top K document retrieval
- d. Imprecise top K document retrieval

The correct answer is: Inexact top K document retrieval

## Question 53

## Question text

An approach to computing scores in an IR system that orders documents in the posting list of a term by decreasing order of term frequency is called:

Select one:

- a. Champion list
- b. Impact ordering
- c. Cluster pruning
- d. Tiered indexes

The correct answer is: Impact ordering

## Question 54

## Question text

For a large collection of documents such as the internet that experience frequent change the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Dynamic indexing process employing an auxiliary index

## Question 55

## Question text

Which of the following is NOT one of the types of queries in a complete search system discussed in our text?

Select one:

- a. Wildcard Query
- b. Boolean retrieval
- c. Phrase Query
- d. Ranked retrieval Query

The correct answer is: Ranked retrieval Query

## Question 56

## Question text

A web server communicates with a client (browser) using which protocol:

Select one:

- a. HTML
- b. HTTP

- c. FTP
- d. Telnet

The correct answer is: HTTP

Question 57

Question text

A measure of similarity between two vectors which is determined by measuring the angle between them is called:

Select one:

- a. cosine similarity
- b. sin similarity
- c. vector similarity
- d. vector scoring

The correct answer is: cosine similarity

Question 58

Question text

A web page whose content doesn't vary from one request to another is called a:

Select one:

- a. Text Page
- b. Dynamic Page
- c. Active Server Page
- d. Static Page

The correct answer is: Static Page

Question 59

Question text

Which of the following items is not a component of a complete search system?

Select one:

- a. Document cache
- b. Indexers
- c. Spell correction
- d. Horizontal index

The correct answer is: Horizontal index

A web page whose content doesn't vary from one request to another is called a:

Select one:

- a. Text Page
- b. Dynamic Page
- c. Active Server Page
- d. Static Page

The correct answer is: Static Page

Question 2

Question text

The size of the document collection that can be indexed by single-pass in-memory indexing algorithm is limited by the size of the disk storage the computer running the indexer process has access to.

Select one:

- True
- False

The correct answer is 'False'.

## Question 3

## Question text

An approach to computing scores in an IR system that pre-computes for each term in the dictionary, the set of documents with the highest weights for the term is:

Select one:

- a. Champion list
- b. Impact ordering
- c. Cluster pruning
- d. Tiered indexes

The correct answer is: Champion list

## Question 4

## Question text

The basic operation of a web browser is to pass a request to the web server. This request is an address for a web page and is known as the:

Select one:

- a. UAL: Universal Address Locator
- b. HTML: Hypertext Markup Language
- c. URL: Universal Resource Locator
- d. HTTP: Hypertext transfer protocol

The correct answer is: URL: Universal Resource Locator

## Question 5

## Question text

A program that captures and indexes content from web pages is known as what insect:

Select one:

- a. Fly
- b. Centipede
- c. Mosquito
- d. Spider

The correct answer is: Spider

## Question 6

## Question text

For a moderately large collection of static documents maintained on a single system the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Single-pass in memory indexing algorithm

## Question 7

## Question text

A measure of similarity between two vectors which is determined by measuring the angle between them is called:

Select one:

- a. cosine similarity
- b. sin similarity

- c. vector similarity
- d. vector scoring

The correct answer is: cosine similarity

#### Question 8

##### Question text

An index that is often supplemental to the inverted index and contains terms from only a particular field or section of a document is called a parametric index.

Select one:

- True
- False

The correct answer is 'True'.

#### Question 9

##### Question text

Which of the following is NOT one of the types of queries in a complete search system discussed in our text?

Select one:

- a. Wildcard Query
- b. Boolean retrieval
- c. Phrase Query
- d. Ranked retrieval Query

The correct answer is: Ranked retrieval Query

#### Question 10

##### Question text

In the context of web search engines the manipulation of web page content for the purpose of appearing high up in search results for selected query terms is called:

Select one:

- a. Paid inclusion
- b. SPAM
- c. SEO
- d. Link Analysis

The correct answer is: SPAM

#### Question 11

##### Question text

Hashing is a process where an item is reduced, through a mathematical process, to an integer.

Select one:

- True
- False

The correct answer is 'True'.

#### Question 12

##### Question text

Considering only documents containing terms whose idf exceeds a preset threshold is an index elimination.

Select one:

- True
- False

The correct answer is 'True'.

## Question 13

## Question text

The tf-idf weight is lower when a term  $t$  occurs many times in a document or occurs in relatively few documents.

Select one:

True

False

The correct answer is 'False'.

## Question 14

## Question text

A process to efficiently intersect lists to be able to quickly find documents that contain both terms is referred to as merging postings lists.

Select one:

True

False

The correct answer is 'True'.

## Question 15

## Question text

Accuracy is typically the most accurate measure of IR system effectiveness.

Select one:

True

False

The correct answer is 'False'.

## Question 16

## Question text

Weighted zone scoring is sometimes referred to as ranked Boolean retrieval.

Select one:

True

False

The correct answer is 'True'.

## Question 17

## Question text

Precision is the fraction of retrieved documents that are relevant.

Select one:

True

False

The correct answer is 'True'.

## Question 18

## Question text

The number of times that a word or term occurs in a document is called the:

Select one:

a. Proximity Operator

b. Vocabulary Lexicon

c. Term Frequency

d. Indexing Granularity

The correct answer is: Term Frequency

Question 19

Question text

An approach to computing scores in an IR system that selects a sample of documents randomly from the collection as leaders which are in the index and links similar documents to it (followers) is called:

Select one:

- a. Champion list
- b. Impact ordering
- c. Cluster pruning
- d. Tiered indexes

The correct answer is: Cluster pruning

Question 20

Question text

An approach to compression that takes advantage of the redundancy in the dictionary that results from common prefixes that come from sorted terms is called:

Select one:

- a. Front Coding
- b. Blocked storage
- c. Prefix Coding
- d. Variable byte encoding

The correct answer is: Front Coding

Question 21

Question text

For a large collection of documents such as the internet that experience frequent change the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Dynamic indexing process employing an auxiliary index

Question 22

Question text

In order to access a particular web site in the internet, the URL must be converted into an IP address. Which service does this conversion?

Select one:

- a. HTTP
- b. TNS
- c. DNS
- d. DHCP

The correct answer is: DNS

Question 23

Question text

The 30 most common words account for 30% of the tokens in written text is known as front coding.

Select one:

True

False

The correct answer is 'False'.

Question 24

Question text

In the bag of words model, the exact ordering of terms within the document is both significant and relevant to processing.

Select one:

True

False

The correct answer is 'True'.

Question 25

Question text

To evaluate the effectiveness of an IR system the output from a standard query executed against the test IR system is compared with the known output from a:

Select one:

a. internet collection

b. reference book

c. separate IR system.

d. standard test collection

The correct answer is: standard test collection

Question 26

Question text

Which of the following items is not a component of a complete search system?

Select one:

a. Document cache

b. Indexers

c. Spell correction

d. Horizontal index

The correct answer is: Horizontal index

Question 27

Question text

An approach to computing scores in an IR system that orders documents in the posting list of a term by decreasing order of term frequency is called:

Select one:

a. Champion list

b. Impact ordering

c. Cluster pruning

d. Tiered indexes

The correct answer is: Impact ordering

Question 28

Question text

Results from a search engine that are based upon the retrieval of items using a method of term weighting such as cosine similarity is a form of:

Select one:



- a. Sponsored Search
- b. Algorithmic Search
- c. Informational Search
- d. Navigational Search

The correct answer is: Algorithmic Search

Question 29

Question text

For a small collection of documents on a personal computer that don't experience any change the most appropriate indexing algorithm would be:

Select one:

- a. Block sort-based indexing algorithm
- b. Single-pass in memory indexing algorithm
- c. Distributed Map-Reduce indexing algorithm
- d. Dynamic indexing process employing an auxiliary index

The correct answer is: Block sort-based indexing algorithm

Question 30

Question text

An index that includes sequences of words or terms of variable length that have been extracted from a source document is called a:

Select one:

- a. Phrase Index
- b. Biword index
- c. Positional index
- d. Inverted Index

The correct answer is: Phrase Index

Question 31

Question text

The purpose of the inverse document frequency is to increase the weight of terms with high collection frequency.

Select one:

- True
- False

The correct answer is 'False'.

Question 32

Question text

A scoring function that computes an aggregate of a document's relevance from multiple sources is called evidence accumulation.

Select one:

- True
- False

The correct answer is 'True'.

Question 33

Question text

A compression algorithm that results in some loss of data is called:

Select one:

- a. zipf compression











