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KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR
FIRST YEAR, SECOND SEMESTER EXAMINATION
FOR THE BACHELOR OF BUSINESS & INFORMATION TECHNOLOGY
KBI 2110 – INFORMATION MANAGEMENT

Date: 15TH April 2024
Time: 2:30PM – 4:30PM

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

- a) Information Management (IM) encompasses the process of collecting, encoding, storage, archiving, retrieval and destruction of information. It is a vital aspect for the success of data driven businesses. In view of this.
- Discuss two techniques human-beings can employ to improve on their Information Management processes (4 Marks)
 - Discuss two challenges associated with information management (4 Marks)
 - Discuss any key concerns associated with the encoding phase (2 Marks)
- b) Additional values give context to your data, including affixing the ability to execute actions on it, such as the move to confinement or a cloud-based data lake. Explain the following terms in relation to Information Management.
- Metadata (2 Marks)
 - Tags and/or labels (2 Marks)
 - Describe the relevance of the two techniques/methods (2 Marks)
- c) Information management allows an organization to achieve various goals. It improves compliance, reduces risk and controls access to vital business information. List the four phases of Information Processing theory. (4 Marks)
- d) The first business application of computers (in the mid-1950s) performed repetitive, high-volume, transaction-computing tasks. The computers crunched numbers summarizing and organizing transactions and data in the accounting, finance, and human resources areas.
- Describe any two significances of IM to organizations (4 Marks)
 - Discuss the term Business Intelligence (2 Marks)
- e) Data collection, analysis, information storage, sharing and destruction are capital-intensive activities, especially for large organizations. Describe the relevance of data management to information management. (2 Marks)
- f) A great information management system can improve how employees store and retrieve information required during their daily activities. List any two elements of an information retrieval system. (2 Marks)

QUESTION TWO (20 MARKS)

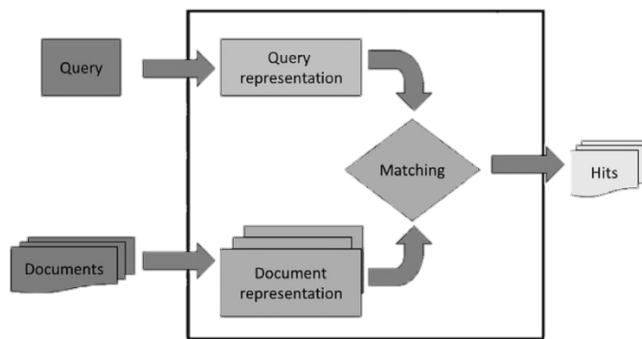
- a) Understanding the purpose of information management can help your business enhance the use, protection and storage of information to operate more effectively. It can also make it easier to disseminate information to diverse recipients via multiple channels, allowing teams to collaborate and communicate easily across time zones and locations. Discuss the following phases of information retrieval.
- i) Indexing (2 Marks)
 - ii) Query formulation (2 Marks)
 - iii) Feedback (2 Marks)
- b) The information retrieval model needs to provide the framework for the system to work and define the many aspects of the retrieval procedure of the retrieval engines. Describe three basic processes an information retrieval system has to support (6 Marks)
- c) Query is defined as any question, especially one expressing doubt or requesting information or to check its validity or accuracy of information. Discuss the following formulation approaches.
- i) A query formulation starting strategy (2 Marks)
 - ii) A query formulation continuation strategy (2 Marks)
- d) The process of query formulation (also referred to as query rewriting or query transformation) modifies the original keyword query submitted by the user to the search engine in order to better represent the underlying intent of the query. Query formulation is usually divided into two main processing stages. Discuss the two stages. (4 Marks)

QUESTION THREE (20 MARKS)

- a) Libraries provide appropriate tools to enhance the capability of users to navigate through their avalanche of resources for effective retrieval. The tools sometimes referred to as retrieval aids facilitate the location of bibliographic records and actual retrieval of associated books, journals, articles, newspapers and electronic resources either from the library shelves or through the world wide web. Discuss the following retrieval tools.
- i) Abstracts (2 Marks)
 - ii) Catalogues (2 Marks)
 - iii) Bibliographies (2 Marks)
- b) Illustrate with a diagram the information retrieval process (6 Marks)
- c) Describe how the Boolean IR model differs from the Vector IR model? (4 Marks)
- d) A book's index helps us to easily locate content, discuss how this approach has contributed to information retrieval and search. (4 Marks)

QUESTION FOUR (20 MARKS)

- a) In most popular cases, the information needed is expressed in the form of a query string (E.g.: google search) and the information too is a string (E.g.: search results on google). Illustrate with a diagram a matching model (6 Marks)
- b) Given the diagram below, describe the following stages of the diagram.



- i) Query representation (2 Marks)
- ii) Document representation (2 Marks)
- iii) Matching (2 Marks)
- iv) Ranking (2 Marks)
- v) Hits (2 Marks)

c) Explain the two key elements of an Index. (4 Marks)

QUESTION FIVE (20 MARKS)

- a) Differentiate between full-text and variable lookup indexing. (4 Marks)
- b) Given the two documents below develop a word and a record level. (8 Marks)
 - i) Document 1: The quick brown fox jumped over the lazy dog
 - ii) Document 2: The lazy dog slept in the sun
- c) Discuss the two matching algorithms or algorithms classifications. (4 Marks)
- d) Information retrieval (IR) services are computer-based systems that allow users to search and retrieve information. Discuss any two such models. (4 Marks)