



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-ABUJA**  
**FACULTY OF SCIENCE**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**SEPTEMBER 2020\_1 EXAMINATION**

**COURSE CODE: CIT841**  
**COURSE TITLE: ADVANCED INFORMATION STORAGE AND RETRIEVAL**  
**CREDIT UNIT: 2**  
**TIME ALLOWED: 2HRS**  
**INSTRUCTION: ANSWER QUESTION ONE (1) AND ANY OTHER THREE.**

Question 1.

- a. Discuss three components of a search engine. **(4marks)**
- b. i. What is User Profile Personalization? **(3 marks)**  
ii. In the context of search, describe the steps involved in personalization. **(4 marks)**
- c. Explain four major characteristics of a Traditional Library. **(4 marks)**
- d. When is a document said to be Relevant to the information system user? **(2 marks)**
- e. Validate the main purpose of query expansion? **(4 marks)**
- f. Enumerate four principal steps in information life cycle. **(4 marks)**

Question 2

- a. (i) Describe the term Filtration? **(1 mark)**  
(ii) Of what advantage is filtration? **(2 marks)**  
(iii) Why are frequently used terms not preferred? **(2marks)**
- b. Discuss Probabilistic indexing. **(4 marks)**
- c. Elucidate on the operations of a Web search engines. **(6 marks)**

Question 3

- a. Highlight any four benefits of a digital library. **(4 marks)**
- b. In search engines, what are hits? **(2 marks)**
- c. Discuss three different ways to specify user profiles. **(9 marks)**

Question 4

- a. Differentiate between Static and Dynamic information retrieval. **(3 marks)**
- b. Highlight any two advantages of digital information over traditional information. **(2 marks)**
- c. (i) What is Stemming? **(2 marks)**  
(ii) Relate the effect of stemming in searching. **(2 marks)**
- d. Enumerate six main measurable quantities when evaluating an information retrieval system **(6marks)**

Question 5

- a. What is weighting? Hence explain the concept of global weighting? **(3 marks)**
- b. What is a web User Profile? **(4.5 marks)**
- c. In the context of Information storage and retrieval, when is information said to be Subjective? **(4.5 marks)**
- d. With respect to content, identify any type of information **(3 marks)**