



**WEST BENGAL STATE UNIVERSITY**  
B.Sc. Honours 6th Semester Examination, 2023

**CMSADSE04P-COMPUTER SCIENCE (DSE3/4)**  
**BIG DATA LAB (PRACTICAL)**  
**NoSQL Queries – using MongoDB**  
**SET-II**

Time Allotted: 2 Hours

Full Marks: 10

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

**Answer any one question from the following**

1. Create a database "Course" which contains information about subjects together with their assessments and text books of UG Hons. Courses of West Bengal State University.  
Course contains a collection "Subjects" which contains documents with the following fields:  
(i) sub\_code  
(ii) sub\_title  
(iii) credit  
(iv) type  
(v) assessments (assess\_Num, weight, assess\_Type, description)  
(vi) books(book\_Type, book\_Title, edition, year\_of\_Pub, publisher, author)  
A subject may have a number of assessments (internal, assignments, practical, semester etc.) and a number of books(text, reference etc.)  
**Queries:**  
(a) Insert at least 4 documents in "Subjects" collection using GUI.  
(b) Display all the documents of the collection in a formatted manner.  
(c) Find the total number of subjects.
2. Create a database "Course" which contains information about subjects together with their assessments and text books of UG Hons. Courses of West Bengal State University.  
Course contains a collection "Subjects" which contains documents with the following fields:  
(i) sub\_code  
(ii) sub\_title  
(iii) credit  
(iv) type  
(v) assessments (assess\_Num, weight, assess\_Type, description)  
(vi) books(book\_Type, book\_Title, edition, year\_of\_Pub, publisher, author)  
A subject may have a number of assessments (internal, assignments, practical, semester etc.) and a number of books(text, reference etc.)  
**Queries:**  
(a) Insert at least 4 documents in "Subjects" collection.  
(b) Display all the documents of the collection in a formatted manner.  
(c) Find the total number of subjects that worth more than 3 credit.



3. Create a database "Course" which contains information about subjects together with their assessments and text books of UG Hons. Courses of West Bengal State University.

Course contains a collection "Subjects" which contains documents with the following fields:

- (i) sub\_code
- (ii) sub\_title
- (iii) credit
- (iv) type
- (v) assessments (assess\_Num,weight,assess\_Type,description)
- (vi) books(book\_Type,book\_Title,edition, year\_of\_Pub,publisher,author)

A subject may have a number of assessments (internal,assignments,practical,semester etc.) and a number of books(text, reference etc.)

**Queries:**

- (a) Insert at least 4 documents in "Subjects" collection.
- (b) Display all the documents of the collection in a formatted manner.
- (c) Find subject code ,subject title, subject type having credit value 4.

4. Create a database "Course" which contains information about subjects together with their assessments and text books of UG Hons. Courses of West Bengal State University.

Course contains a collection "Subjects" which contains documents with the following fields:

- (i) sub\_code
- (ii) sub\_title
- (iii) credit
- (iv) type
- (v) assessments (assess\_Num,weight,assess\_Type,description)
- (vi) books(book\_Type,book\_Title,edition, year\_of\_Pub,publisher,author)

A subject may have a number of assessments (internal,assignments,practical,semester etc.) and a number of books(text, reference etc.)

**Queries:**

- (a) Insert at least 4 documents in "Subjects" collection.
- (b) Display all the documents of the collection in a formatted manner.
- (c) Find subject title, subject type having highest credit value.

5. Create a database "Course" which contains information about subjects together with their assessments and text books of UG Hons. Courses of West Bengal State University.

Course contains a collection "Subjects" which contains documents with the following fields:

- (i) sub\_code
- (ii) sub\_title
- (iii) credit
- (iv) type
- (v) assessments (assess\_Num,weight,assess\_Type,description)
- (vi) books(book\_Type,book\_Title,edition, year\_of\_Pub,publisher,author)

A subject may have a number of assessments (internal,assignments,practical,semester etc.) and a number of books(text,reference etc.)

**Queries:**

- (a) Insert at least 4 documents in "Subjects" collection.
- (b) Display all the documents of the collection in a formatted manner.
- (c) Find title, author, type of books used for the subject code CMSACOR13T.



6. Create a database "Course" which contains information about subjects together with their assessments and text books of UG Hons. Courses of West Bengal State University.

Course contains a collection "Subjects" which contains documents with the following fields:

- (i) sub\_code
  - (ii) sub\_title
  - (iii) credit
  - (iv) type
  - (v) assessments (assess\_Num,weight,assess\_Type,description)
  - (vi) books(book\_Type,book\_Title,edition, year\_of\_Pub,publisher,author)
- A subject may have a number of assessments (internal,assignments,practical,semester etc.) and a number of books(text,reference etc.) .

**Queries:**

- (a) Insert at least 4 documents in "Subjects" collection.
- (b) Display all the documents of the collection in a formatted manner.
- (c) For each subject type, list the name of subjects and the total number of subjects belonging to the subject type.

7. Create a database "Course" which contains information about subjects together with their assessments and text books of UG Hons. Courses of West Bengal State University.

Course contains a collection "Subjects" which contains documents with the following fields:

- (i) sub\_code
  - (ii) sub\_title
  - (iii) credit
  - (iv) type
  - (v) assessments (assess\_Num,weight,assess\_Type,description)
  - (vi) books(book\_Type,book\_Title,edition, year\_of\_Pub,publisher,author)
- A subject may have a number of assessments (internal,assignments,practical,semester etc.) and a number of books(text,reference etc.)

**Queries:**

- (a) Insert at least 4 documents in "Subjects" collection.
- (b) Display all the documents of the collection in a formatted manner.
- (c) Find books which are published in 2019.

8. Create a database "Course" which contains information about subjects together with their assessments and text books of UG Hons. Courses of West Bengal State University.

Course contains a collection "Subjects" which contains documents with the following fields:

- (i) sub\_code
  - (ii) sub\_title
  - (iii) credit
  - (iv) type
  - (v) assessments (assess\_Num,weight,assess\_Type,description)
  - (vi) books(book\_Type,book\_Title,edition, year\_of\_Pub,publisher,author)
- A subject may have a number of assessments (internal,assignments,practical,semester etc.) and a number of books(text,reference etc.)

**Queries:**

- (a) Insert at least 4 documents in "Subjects" collection.
- (b) Display all the documents of the collection in a formatted manner.
- (c) For each subject, find the total number of books.



9. Create a database "Course" which contains information about subjects together with their assessments and text books of UG Hons. Courses of West Bengal State University.

Course contains a collection "Subjects" which contains documents with the following fields:

- (i) sub\_code
- (ii) sub\_title
- (iii) credit
- (iv) type
- (v) assessments (assess\_Num, weight, assess\_Type, description)
- (vi) books(book\_Type, book\_Title, edition, year\_of\_Pub, publisher, author)

A subject may have a number of assessments (internal, assignments, practical, semester etc.) and a number of books(text, reference etc.)

**Queries:**

- (a) Insert at least 4 documents in "Subjects" collection.
  - (b) Display all the documents of the collection in a formatted manner.
  - (c) Display subjects for which number of assessments is 5.
10. Create a database "Course" which contains information about subjects together with their assessments and text books of UG Hons. Courses of West Bengal State University.

Course contains a collection "Subjects" which contains documents with the following fields:

- (i) sub\_code
- (ii) sub\_title
- (iii) credit
- (iv) type
- (v) assessments (assess\_Num, weight, assess\_Type, description)
- (vi) books(book\_Type, book\_Title, edition, year\_of\_Pub, publisher, author)

A subject may have a number of assessments (internal, assignments, practical, semester etc.) and a number of books(text, reference etc.)

**Queries:**

- (a) Insert at least 4 documents in "Subjects" collection.
- (b) Display all the documents of the collection in a formatted manner.
- (c) Find Assessment Number, Assessment Type and Assessment Description for which weight is 10.

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