Name	
Roll Number	
Quiz Version:	**3A**

Multiple Choice Questions: 10 marks

1. When using find().skip(5).limit(10) in MongoDB, what is the resulting behavior regarding the output?
A. It skips the first 10 documents and returns the next 5.
B. It returns documents 1 through 10, then skips the next 5.
C. It bypasses the first 5 documents matching the query and returns the subsequent 10.
D. It returns the last 5 documents of the collection regardless of the limit.

2. You need to completely overwrite an existing document with a new set of fields, leaving only the _id unchanged. Which operation is most appropriate?
A. updateOne() using the $set operator.
B. replaceOne()
C. findOneAndUpdate()
D. bulkWrite()

3. In a Mongoose Schema, you define a field as email: { type: String, unique: true }. What is the primary function of unique: true?
A. It adds a validation rule that prevents saving if the email format is incorrect.
B. It creates a MongoDB unique index on the email field to prevent duplicate values.
C. It is only a suggestion to the frontend to check for duplicates.
D. It automatically generates a unique ObjectId for the email field.

4. Consider the Mongoose operation: await User.find({ age: { $gte: 18 } }).sort({ name: 1 }). What does the argument { name: 1 } signify?
A. Return only the name field in the result.
B. Sort the results by name in descending order (Z-A).
C. Sort the results by name in ascending order (A-Z).
D. Limit the result to 1 user named "name".

5. Which of the following statements about findOneAndDelete() vs deleteOne() is accurate?
A. deleteOne() returns the deleted document, whereas findOneAndDelete() returns a boolean status.
B. findOneAndDelete() retrieves the document content either before or after deletion, whereas deleteOne() primarily returns the deletion count.

C. findOneAndDelete() can delete multiple documents if they match the filter.

D. There is no functional difference; they are aliases for the same command.

6. If you run db.collection.createIndex({ username: 1 }), what is the immediate trade-off?

A. Read operations become slower, but write operations become faster.

B. Storage space decreases, but query speed increases.

C. Read operations using username become faster, but insert/update operations may become slightly slower.

D. It prevents any further inserts into the username field.

7. In Mongoose, what is the role of the ref option in a Schema definition (e.g., ref: 'User')?

A. It acts as a Foreign Key constraint that deletes related documents automatically (Cascading Delete).

B. It tells Mongoose which Model to look for when populate() is called on that field.

C. It embeds the entire User object inside the current document permanently.

D. It validates that the ObjectId provided exists in the database before saving.

8. You need to execute a sequence of insert, update, and delete operations in a single network request for efficiency. Which command should you use?

A. aggregate()

B. insertMany()

C. bulkWrite()

D. updateMany()

9. When defining a Mongoose Model const Book = mongoose.model('Book', bookSchema);, what will be the default name of the collection in MongoDB?

A. Book

B. books (lowercased and pluralized)

C. BookCollection

D. book_schema

10. What does the distinct() operation return?

A. A list of unique documents (entire objects) matching the query.

B. A count of how many unique documents exist.

C. An array of unique values for a specific field across the collection.

D. The first document that is different from the others.

Short Question (5 marks)

Write a Mongoose query to find all posts written by a specific user e.g userId=27. Assume the model's name is "Post"

Write the code below:

Name	
Roll Number	
Quiz Version:	**3B**

Multiple Choice Questions: 10 marks

1. Which MongoDB operation is best when you want to run multiple inserts, updates, or deletes in a single request?
A. insertMany()
B. aggregate()
C. bulkWrite()
D. updateMany()

2. What will find().sort({ age: -1 }) do?
A. Sort by age ascending
B. Sort by age descending
C. Randomize the results
D. Sort only the first document

3. Which of the following operations returns the number of documents that match a given filter?
A. findOne()
B. countDocuments()
C. aggregate()
D. updateOne()

4. Which update operation returns the updated document after the modification (when options are set)?
A. updateMany()
B. updateOne()
C. findOneAndUpdate()
D. replaceOne()

5. Which command would you use to remove all documents that match a condition?
A. deleteOne()
B. deleteMany()
C. drop()
D. findOneAndDelete()

6. What does aggregate() allow you to do that find() cannot?
A. Query multiple collections at once
B. Write expressions, grouping, and transformations

C. Fetch only one document

D. Insert new documents

7. In Mongoose, what is the purpose of mongoose.connect()?

A. Runs queries automatically

B. Connects Node.js application to a MongoDB database

C. Defines a schema

D. Deletes a database

8. What is TRUE about Mongoose schemas?

A. They store actual documents

B. They define document structure and rules

C. They automatically create indexes

D. They cannot define custom IDs

9. Which field type is commonly used for referencing another model in Mongoose relationships?

A. Number

B. String

C. ObjectId

D. Mixed

10. Which operation would show all indexes of a MongoDB collection?

A. createIndex()

B. dropIndex()

C. getIndexes()

D. listCollections()

Short Question (5 marks)

Write a Mongoose query to update a user's age to 30 where the user's name is "Ali".

Write the code below: