Possible conceptual theory Questions

Study in detail all the concepts related to the following:

CO4

1. What is middleware in Express, and how is it used? Provide an example where you use middleware for logging or request validation.
2. Describe in detail the NodeJS architecture.
3. Describe in detail the NodeJS event loop architecture and justify how it manages multiple tasks asynchronously.
4. Write a JavaScript code to write the JSON object to a file using asynchronous file methods.
5. Compare NoSQL with SQL databases.

CO1

1. How do web cache, web cookies and search engines support searching on the Internet?
2. List the services rendered by Transport Layer, Internet (Network) Layer, DataLink Layer and Physical Layer.
3. Elaborate on the features of HTTP,
4. What are the different response status codes generated by HTTP?
5. Discuss on the different HTTP methods and mention their idempotency.
6. Differentiate between URI , URL and URN.
7. What are Port, Socket , logical and Physical addresses in computer networks? Mention the respective layers that make use of these addresses.