

(3 Hours)

(Total Marks: 80)

- N.B.:** 1. Question No.1 is compulsory.  
2. Answer any three out of remaining questions.  
3. Assume suitable data if necessary.  
4. Figures to the right indicate full marks.

- Q1.** a) Explain REST API in detail. (10)  
b) Compare XML and JSON. (10)
- Q2.** a) Explain React component life cycle. (10)  
b) What are Buffers and Streams in NodeJs? Explain with an example. (10)
- Q3.** a) Explain asynchronous programming in detail. (10)  
b) What is DNS? Explain working of DNS. (10)
- Q4.** a) What is NodeJS? Explain features of NodeJS. State different types of NodeJS Modules. (10)  
b) Explain Arrow function in ES6 with an example. (10)
- Q5.** a) What are Refs? When to use Refs and when not to use Refs? (10)  
b) Explain routing in ExpressJS along with an example. (10)
- Q6.** Short note on: (Any 4) (20)  
a) REPL  
b) DOM  
c) JSX  
d) URL  
e) NPM

\*\*\*\*\*