






# Node js

## 1. Buffers and Stream

### Direct MCQs


1. Which of the following is true about Node.js Buffer?
  - a) It is used to handle binary data
  - b) It can only store strings
  - c) It cannot be resized
  - d) Both a and c 
2. What method is used to create a Buffer from a string in Node.js?
  - a) `Buffer.from()` 
  - b) `Buffer.create()`
  - c) `Buffer.init()`
  - d) `Buffer.new()`
3. Which of these is a writable stream in Node.js?
  - a) `fs.createWriteStream()` 
  - b) `fs.createReadStream()`
  - c) `stream.Readable()`
  - d) `Buffer.alloc()`

### Scenario-based MCQs

4. You want to read a large file without loading it entirely into memory. Which Node.js concept should you use?
  - a) Buffer
  - b) Stream 
  - c) OS module
  - d) Process
5. A server is sending data chunks to a client. Which Node.js method allows processing each chunk as it arrives?
  - a) `data` event on a stream 
  - b) `end` event on process
  - c) `require('os')`
  - d) `Buffer.alloc()`

## 2. Node.js Modules

### Direct MCQs

1. Which method is used to import a module in Node.js?
  - a) `import moduleName`
  - b) `require('moduleName')` 

- c) `include( 'moduleName' )`
- d) `load( 'moduleName' )`
- 2. How can you export a single function from a module?
  - a) `exports = functionName`
  - b) `module.exports = functionName` ✓
  - c) `require(functionName)`
  - d) `export functionName`
- 3. Which of these is a built-in Node.js module?
  - a) `http` ✓
  - b) `express`
  - c) `mongoose`
  - d) `dotenv`

### Scenario-based MCQs

4. You want to create a reusable utility module for mathematical operations. Which Node.js feature is used?
- a) OS module
  - b) Buffer
  - c) Custom module ✓
  - d) Stream
5. A module should expose multiple functions. Which approach is correct?
- a) `module.exports = {func1, func2}` ✓
  - b) `exports = func1, func2`
  - c) `require( 'func1', 'func2' )`
  - d) `Buffer.alloc(func1, func2)`

## 3. Node.js OS Module

### Direct MCQs

1. Which method returns the operating system platform in Node.js?
  - a) `os.type()`
  - b) `os.platform()` ✓
  - c) `os.arch()`
  - d) `os.hostname()`
2. What does `os.cpus()` return?
  - a) CPU load average
  - b) Number of CPU cores
  - c) Array of objects containing CPU info ✓
  - d) Operating system type
3. Which OS module method gives the amount of free system memory?
  - a) `os.totalmem()`

- b) `os.freemem()` ☒
- c) `os.memory()`
- d) `os.cpus()`

### Scenario-based MCQs

4. You need to check the server's CPU architecture before deploying a process. Which OS method is suitable?

- a) `os.arch()` ☒
- b) `os.type()`
- c) `os.hostname()`
- d) `os.networkInterfaces()`

5. Your app should log server uptime. Which OS module function will help?

- a) `os.uptime()` ☒
- b) `os.loadavg()`
- c) `os.freemem()`
- d) `os.platform()`

## 4. Process Module

### Direct MCQs


1. Which property gives Node.js process ID?
  - a) `process.pid` ☒
  - b) `process.id`
  - c) `process.name`
  - d) `process.exec`
2. How can you exit a Node.js process with a status code?
  - a) `process.exit(code)` ☒
  - b) `process.stop(code)`
  - c) `process.kill(code)`
  - d) `process.end(code)`
3. Which event is emitted when a process is about to exit?
  - a) `exit` ☒
  - b) `close`
  - c) `stop`
  - d) `end`

### Scenario-based MCQs

4. You want to access command-line arguments passed to a Node.js script. Which property is used?




- a) `process.argv` ☒
- b) `process.env`

- c) `process.stdin`
- d) `process.stdout`



5. A script needs to print current environment variables. Which property should be used?
- a) `process.env` 
  - b) `process.args`
  - c) `process.vars`
  - d) `process.settings`

## 5. Net, Web, and Socket.io Module

### Direct MCQs




1. Which module is used to create TCP servers in Node.js?
  - a) `http`
  - b) `net` 
  - c) `socket.io`
  - d) `os`
2. Which event is emitted when a TCP server receives a new connection?
  - a) `connection` 
  - b) `connect`
  - c) `data`
  - d) `listen`
3. Which library provides real-time bi-directional communication in Node.js?
  - a) `http`
  - b) `fs`
  - c) `socket.io` 
  - d) `express`

### Scenario-based MCQs



4. You are building a chat application that updates messages in real-time. Which Node.js library is best?
- a) `net`
  - b) `socket.io` 
  - c) `os`
  - d) `http`
5. A server should respond to HTTP requests. Which module is used?
- a) `net`
  - b) `http` 
  - c) `socket.io`
  - d) `stream`

## 6. Node.js with RDBMS and MongoDB

### Direct MCQs

1. Which Node.js library is commonly used for MySQL integration?  
a) `mysql`   
b) `mongoose`  
c) `pg`  
d) `mongodb`
2. Which library is used to connect Node.js with MongoDB?  
a) `mysql`  
b) `pg`  
c) `mongoose`   
d) `sequelize`
3. Which method is used in Mongoose to define a schema?  
a) `mongoose.Schema ( )`   
b) `mongoose.model ( )`  
c) `mongoose.connect ( )`  
d) `mongoose.create ( )`

### Scenario-based MCQs

4. You want to fetch all users whose age > 25 from MongoDB. Which Node.js library can be used?  
a) `mysql`  
b) `mongoose`   
c) `pg`  
d) `sequelize`
5. A Node.js application needs to execute a SQL query to retrieve employee records from MySQL. Which library is suitable?  
a) `mongoose`  
b) `mysql`   
c) `fs`  
d) `net`