

Max points 100. All questions carry equal weight

- (1) True or False. XSS (Cross Site Scripting) is worse than CSRF (Cross Site Reference Forgery).
- (2) Describe CSRF problem. Draw a diagram to illustrate.
- (3) Describe how would you protect against CSRF
- (4) Use JavaScript frameworks such as Reactjs in combination with Webpack, makes it nearly impossible to use meta tags for serving CSRF token. However, you can use a fetch GET request to get the CSRF token before making a POST request. Assume that the server sent a CSRF token in a header named x-csrf-token. Write code to get this token from the header and save it in a variable (preferably in the Redux store).
- (5) Write code to send the x-csrf-token using a header to the server.
- (6) Write code to protect a path on the server from CSRF attacks. You can assume the approach and npm modules discussed in the lectures as available.
- (7) What is the purpose of express-session. What are your choices to store data using express-session (on or off the server)? Which one you would prefer.
- (8) Write a express post handler for the url '/echo' that simply returns (echoes) the data sent if it is json and sends a error message in json format if the data sent is not json.
- (9) Write an express middleware function that validates a telephone number and sends an error message and blocks further processing if the telephone number is invalid. Otherwise, processing should proceed further.
- (10) What is express-static? How would you use it? Give a code sample using express-static.