16CS551

Fifth Semester B.E. Makeup Examination, January 2020

ADVANCED WEB PROGRAMMING

Time: 3 Hours Max. Marks: 100

Instructions: 1. *Answer one full question from each unit.*
2. *Draw the diagrams wherever necessary.*

UNIT - I

			L	CO	PO	M
	a.	Compare classic Web Application model with Ajax web application model	(02)	(01)	(01)	(05)
	b.	Write the code to retrieve customer information by receiving customer ID as input with the help of Ajax using XHR GET method.	(03)	(02)	(03)	(10)
	c.	Explain the Ajax Fallback patterns	(02)	(01)	(01)	(05)

OR

2	a.	Consider a system where a user registers himself/herself with an html form having minimal information. There is another user called administrator who verifies the registration data of the users and approves their registration. The notification related to registration is received by the user within 24 hours. The login to the system is possible only when the registration is successful. Mention the design pattern that must be used to develop the system and write the code for the same.	(05)	(02)	(03)	(10)
	b.	Explain how do you handle multiple browser implementations in Ajax with example.	(02)	(01)	(01)	(05)
	c.	Write a note on cache control	(02)	(01)	(01)	(05)

UNIT – II

			L	CO	PO	M
3	a.	Write a short note on Supporting cast for MEAN stack application development.	(03)	(01)	(01)	(05)
	b.	Explain the need for the planning of MEAN stack application. Also describe the screens required for the Loc8r Application	(02)	(01)	(01)	(05)
	c.	What is the difference between development hardware and production hardware? Recommend suitable hardware architecture for the following cases. i) An application with low amount of traffic ii) For platform as a service iii) Growing traffic iv) Overloading traffic or thousands of requests per second	(05)	(01)	(03)	(10)

OR

4	a.	Recommend suitable MEAN stack architecture for blog application. The blog application has two interfaces one for blog entries and another for admin interface. While designing architecture consider conflicting architecture requirements of both the interfaces i.e., blog entries and admin interfaces.	(05)	(01)	(03)	(10)
	b.	Describe the steps in designing the Loc8r application with appropriate diagrams	(02)	(02)	(01)	(10)

				L	CO	PO
		UNIT - III				
5	a.	Explain the key interactions and processes that Express goes through when responding to the for the default landing page.		(02)	(01)	(01)
	b.	Explain Bootstrap's responsive grid system with appropriate diagram		(02)	(01)	(01)
	c.	Design the mongoose schema for Details page of loca8r application with sample data		(03)	(02)	(03)
		OR				
6	a.	Explain how do you import bootstrap for responsive layouts		(02)	(01)	(01)
	b.	What is mongoose? Explain how mongoose models the data.		(02)	(01)	(01)
	c.	Explain how a relational database and document database store repeating information relating parent element.		(02)	(01)	(01)
		UNIT - IV		**L**	**CO**	**PO**
7	a.	Explain the request methods of REST API		(02)	(03)	(01)
	b.	Illustrate creation of i) New Document in MongoDB. ii) Subdocument in MongoDB.		(02)	(03)	(01)
	c.	Explain the validation at the schema level with mongoose.		(02)	(03)	(01)
		OR				
8	a.	Explain how to find out a single subdocument based on IDs using GET method.		(02)	(03)	(01)
	b.	Explain how to pass the data from API to the view		(02)	(03)	(01)
	c.	Describe how to catch errors returned from API		(02)	(03)	(01)
		UNIT -V		**L**	**CO**	**PO**
9	a.	With diagram explain three different request loops associated with approaches for switching fro express routing to Angular routing.		(02)	(01)	(01)
	b.	Explain traditional server based application approach for authentication		(02)	(01)	(01)
		OR				
10	a.	Write a short note $scope.$apply().		(02)	(01)	(01)
	b.	How to ensure that forms works as expected?		(02)	(01)	(01)
	c.	Explain the steps involved in removing the reliance on server side application		(02)	(01)	(01)

Note: L (Level), CO (Course Outcome), PO (Programme Outcome), M (Marks)

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Fifth Semester B.E. Semester End Examination, Dec./Jan. 2019-20
ADVANCED WEB PROGRAMMING

Time: 3 Hours

Max. Marks: 100

Instructions: 1. Answer one full question from each unit.
2. Draw the diagrams wherever necessary.

			L	CO	PO	M
		UNIT - I				
1	a.	List out difference between frames and hidden frames	(1)	(1)	(1)	(04)
	b.	Explain HTTP responses along with status codes	(2)	(1)	(1)	(06)
	c.	Write a short note on i)Google Suggest ii)Gmail iii)Google Maps iv) Yahoo News v) Bitflux Blog	(2)	(1)	(1)	(10)
		OR				
2	a.	List and Explain any six principles of Ajax.	(2)	(1)	(1)	(06)
	b.	Describe with the diagram the advantages and disadvantages of XHR.	(2)	(1)	(1)	(04)
	c.	Define Design patterns. Explain predictive fetch pattern and submission throttling pattern.	(2)	(1)	(1)	(10)
			L	CO	PO	M
		UNIT – II				
3	a.	List the benefits of full stack development.	(1)	(1)	(1)	(05)
	b.	Explain with the diagram one-way data binding and two-way data binding.	(2)	(1)	(1)	(10)
	c.	Write a short note on hardware architecture for MEAN stack development.	(3)	(1)	(1)	(05)
		OR				
4	a.	Compare relational databases and document databases.	(2)	(1)	(1)	(05)
	b.	Explain with the diagram MEAN stack architecture. Also explain the purpose of each technology in MEAN stack.	(2)	(1)	(1)	(10)
	c.	List and explain rapid prototype development stages of MEAN stack architecture.	(2)	(1)	(1)	(05)
			L	CO	PO	M
		UNIT - III				
5	a.	Explain request response flow of MVC architecture.	(2)	(1)	(1)	(05)
	b.	The *add_review* page must contain a form with name, rating and review fields which the user will fill in and submit for a particular location. The appropriate error handling mechanism must be added for the submission of the form. Write the code for add_review.jade and design the appropriate desktop and mobile screen layouts for the same.	(5)	(2)	(3)	(10)
	c.	Explain how you test routes and controllers.	(2)	(1)	(1)	(05)

		OR					
6	a.	Illustrate defining of package.json file.	(4)	(1)	(1)	(05)
	b.	Explain the steps involved in pushing the site live using Git.	(2)	(1)	(1)	(05)
	c.	Write the code for complete database connection file using mongoose	(3)	(2)	(3)	(10)
			L	**CO**	**PO**	**M**
		UNIT - IV				
7	a.	Differentiate between good API and bad API and List down the various HTTP status codes.	(2)	(3)	(1)	(10)
	b.	Explain DELETE method to remove data from MongoDB.	(2)	(3)	(1)	(10)
		OR				
8	a.	Define REST API and its rules. Explain how REST API processes HTTP requests.	(2)	(3)	(1)	(05)
	b.	Explain how to update an existing subdocument in MongoDB	(2)	(3)	(1)	(05)
	c.	Explain i) Validating at the application level with NODE and Express ii) Validating with browser with jQuery	(2)	(03)	(1)	(10)
			L	**CO**	**PO**	**M**
		UNIT -V				
9	a.	Describe how to add angular to Express application	(2)	(1)	(1)	(05)
	b.	Write a short note on one-way password encryption using hashes and salts.	(2)	(1)	(1)	(05)
	c.	Explain the Full MEAN stack approach for authentication	(2)	(3)	(1)	(10)
		OR				
10	a.	Explain how to make HTTP requests from angular to an API	(2)	(3)	(1)	(10)
	b.	Elaborate on how do you improve browser performance	(2)	(1)	(1)	(10)

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Fifth Semester B.E. Makeup Examination, January 2019
ADVANCED WEB PROGRAMMING

Time: 3 Hours

Max. Marks: 100

Instructions: 1. *Unit-I and Unit-II are compulsory*
2. *Answer any one full question from each of the remaining units.*

			L	CO	PO	M
		UNIT - I				
1	a.	Compare classic web application model with Ajax web application model.	(2)	(1)	(1)	(05)
	b.	Define Design Patterns. Explain submission throttling design pattern with diagram.	(2)	(1)	(1)	(05)
	c.	Write a code to implement Google Suggest like feature using Ajax and PHP.	(3)	(1)	(3)	(10)
		UNIT – II	L	CO	PO	M
2	a.	Which is better approach: single threaded web server or multithreaded web server? Justify your answer with proper reasoning.	(4)	(1)	(1)	(05)
	b.	Explain with diagram MEAN stack architecture. Also explain the purpose of each technology in MEAN stack.	(2)	(1)	(1)	(10)
	c.	What is the difference between development hardware and production hardware? Recommend suitable hardware architecture for the following scenarios. a. An application with low amounts of traffic. b. For Platform as a service c. Growing traffic d. Overloading traffic or thousands of requests per second.	(5)	(1)	(3)	(05)
		UNIT - III	L	CO	PO	M
3	a.	The primary aim for the homepage is to display a list of locations. Each location will need to have a name, an address, the distance away, users' ratings, and a facilities list. We'll also want to add a header to the page, and some text to put the list in context, so that users know what they're looking at when they first visit. Design a Desktop and mobile screen layouts for the given scenario.	(5)	(2)	(3)	(10)
	b.	Explain request–response flow of a basic MVC architecture.	(2)	(1)	(1)	(05)
	c.	Explain how you handle complex and repeating data.	(2)	(1)	(1)	(05)
		OR				
4	a.	Explain the key interactions and processes that Express goes through when responding to the request for the default landing page.	(2)	(1)	(1)	(05)
	b.	Explain the steps in hosting an application on Heroku	(2)	(1)	(1)	(10)
	c.	Explain how do you setup controllers	(2)	(1)	(1)	(05)

Note: L (Level), CO (Course Outcome), PO (Programme Outcome), M (Marks)

			L	CO	PO	M
5	a.	**UNIT - IV** A good API always returns a response and shouldn't leave you hanging. Justify this statement	(4)	(3)	(1)	(05)
	b.	Recommend suitable request method for the following actions with proper justification a. Create a new location b. Read list of locations c. Read specific location d. Update a specific location e. Delete a specific location	(5)	(3)	(3)	(10)
	c.	Explain Request Methods for REST APIs.	(2)	(3)	(1)	(05)
		OR				
6	a.	Explain i) Creating new documents in MongoDB ii) Creating new subdocuments in MongoDB	(2)	(1)	(1)	(10)
	b.	Explain i) Using Mongoose to update a document in MongoDB ii) Updating an existing subdocument in MongoDB	(2)	(1)	(1)	(10)
		UNIT -V	L	CO	PO	M
7	a.	Explain how do your ensure forms work as expected.	(2)	(1)	(1)	(10)
	b.	Write a note on $scope.$apply().	(2)	(1)	(1)	(05)
	c.	Explain the steps to add services to single page applications	(2)	(1)	(1)	(05)
		OR				
8	a.	Explain how do you secure relevant API end-points	(2)	(1)	(1)	(10)
	b.	Explain traditional server-based application approach for authentication.	(2)	(1)	(1)	(10)

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Fifth Semester B.E. Semester End Examination, Dec/Jan 2018-19
ADVANCED WEB PROGRAMMING

Time: 3 Hours Max. Marks: 100

Instructions: 1. *Unit-I and Unit-II are compulsory*
2. *Answer any one full question from each of the remaining units.*

UNIT - I

			L	CO	PO	M
1	a.	List and explain any five basic principles of ajax.	(02)	(01)	(01)	(05)
	b.	Explain how do you handle multiple browser implementations in Ajax with examples	(02)	(01)	(01)	(05)
	c.	Explain with example fallback patterns. Write an Ajax code to fetch content from text file and display it on the webpage.	(03)	(01)	(03)	(10)

UNIT – II

			L	CO	PO	M
2	a.	Explain the benefits of full stack development.	(02)	(01)	(01)	(05)
	b.	Compare integrated approach and API approach of data integration into node.js.	(02)	(01)	(01)	(05)
	c.	What is the difference between development hardware and production hardware? Recommend suitable hardware architecture for the following scenarios. Justify your recommendations a. An application with low amounts of traffic. b. For Platform as a service c. Growing traffic d. Overloading traffic or thousands of requests per second.	(05)	(01)	(03)	(10)

UNIT - III

			L	CO	PO	M
3	a.	The primary aim for the homepage is to display a list of locations. Each location will need to have a name, an address, the distance away, users' ratings, and a facilities list. We'll also want to add a header to the page, and some text to put the list in context, so that users know what they're looking at when they first visit. Design a Desktop and mobile screen layouts for the given scenario.	(05)	(02)	(03)	(10)
	b.	Explain the need for Bootstrap. Explain breakpoints that Bootstrap targets for different types of devices.	(02)	(02)	(01)	(05)
	c.	Explain how you test controllers and routes.	(02)	(01)	(01)	(05)

OR

4	a.	Explain the usage of jade templates. Also explain the index.jade and layout.jade template files with sample code.	(02)	(01)	(01)	(10)
	b.	Explain how a relational database and document database store repeating information relating to a parent element.	(02)	(01)	(01)	(05)
	c.	Explain how the application and database talk to each other through models.	(02)	(01)	(01)	(05)

			L	CO	PO	M
		UNIT - IV				
5	a.	Explain the working of REST APIs with diagram	(02)	(03)	(01)	(05)
	b.	Recommend suitable request method for the following actions a.Create a new location b. Read list of locations c. Read specific location d. Update a specific location e. Delete a specific location	(05)	(03)	(03)	(05)
	c.	Explain most popular HTTP status codes and how they might be used when sending responses to an API request.	(02)	(03)	(01)	(10)
		OR				
6	a.	Explain i) Deleting documents in MongoDB ii) Deleting a subdocument from MongoDB	(02)	(01)	(01)	(10)
	b.	Explain methods to protect data integrity with data validation.	(02)	(01)	(01)	(10)
			L	CO	PO	M
		UNIT -V				
7	a.	Explain various methods of getting data from an API.	(02)	(01)	(01)	(10)
	b.	Explain three different request loops associated with different approaches for routing requests in Single Page Applications	(02)	(01)	(01)	(10)
		OR				
8	a.	Explain steps involved in removing the reliance on server side application	(02)	(01)	(01)	(10)
	b.	Explain full MEAN stack approach for authentication	(02)	(01)	(01)	(10)

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15CS561

Fifth Semester B.E. Semester End Examination, Dec/Jan 2017-18

ADVANCED WEB PROGRAMMING

Time: 3 Hours

Max. Marks: 100

Instructions: 1. *Unit I and Unit II are compulsory*
2. *Answer one full question form remaining each units*

UNIT – I

1 a. Explain with example code methods and properties of XMLHTTP object **10 M**
(Level [2], CO [1], PO [1])

b. Define Design Patterns. Explain Predictive fetch pattern and submission throttling pattern **10 M**
(Level [2], CO [1], PO [1])

UNIT – II

2 a. Explain with diagram one-way data binding and two way data binding **10 M**
(Level [2], CO [1], PO [1])

b. Recommend suitable MEAN stack architecture for blog application. The blog application has two interfaces one for biog entries and another for admin interface. While designing architecture consider conflicting requirements of both the interfaces i.e., blog entries and admin interface. **10 M**
(Level [5], CO [1], PO [3])

UNIT – III

3 a. Explain with diagram the key interactions and processes that Express goes through when responding to the request for the default landing page. **10 M**
(Level [2], CO [1], PO [1])

b. Explain with diagram, the data flow in MVC architecture. **10 M**
(Level [2], CO [1], PO [1])

OR

4 a. Illustrate the following **10 M**
i) Listening for SIGINT on Windows
ii) Using Multiple databases
(Level [3], CO [1], PO [1])

b. Explain how do you make the application use the right database **10 M**
(Level [2], CO [1], PO [1])

UNIT – IV

5 a. Explain API URL specifications for interacting with subdocuments with examples **10 M**
(Level [2], CO [3], PO [1])

b. Explain POST methods for adding data to MongoDB **10 M**
(Level [2], CO [3], PO [1])

OR

6 a. Explain the following **10 M**
i) Validating at the application level with Node and Express
ii) Validating in the browser with JQuery
(Level [2], CO [3], PO [1])

b. Explain the steps of moving the rendering into a named function **10 M**
(Level [2], CO [3], PO [1])

UNIT –V

7 a. Explain how do you get data from an API **10 M**
(Level [2], CO [1], PO [1])

b. Elaborate how do you improve browser performance **10 M**
(Level [2], CO [1], PO [1])

OR

8 a. Explain how do you include additional pages and dynamically inject HTML into Single Page Application **10 M**

(Level [2], CO [1], PO [1])

b. Explain full MEAN stack approach for managing authentication **10 M**

(Level [2], CO [1], PO [1])