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Subject Code:- ACSE0612

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**NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA**

**(An Autonomous Institute Affiliated to AKTU, Lucknow)**

**B.Tech**

**SEM: VI - THEORY EXAMINATION (2022-2023 )**

**Subject: Full-Stack Web Development using Laravel with Vue.JS**

**Time: 3 Hours**

**Max. Marks: 100**

**General Instructions:**

**IMP:** Verify that you have received the question paper with the correct course, code, branch etc.

**1.** This Question paper comprises of **three Sections -A, B, & C.** It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.

**2.** Maximum marks for each question are indicated on right -hand side of each question.

**3.** Illustrate your answers with neat sketches wherever necessary.

**4.** Assume suitable data if necessary.

**5.** Preferably, write the answers in sequential order.

**6.** No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

**SECTION A**

**20**

**1. Attempt all parts:-**

- 1-a. Bootstrap directory in Laravel is used to (CO1) 1
- (a) Initialize a Laraval application
  - (b) Call laravel library functions
  - (c) Load the configuration files
  - (d) Load laravel classes and models
- 1-b. Choose the file that is used to define application routes in Laravel. (CO1) 1
- (a) app.php
  - (b) routes.php
  - (c) web.php
  - (d) api.php
- 1-c. Select the correct purpose of the "key" attribute in Vue.js when using v-for. (CO2) 1
- (a) To uniquely identify each item in the loop
  - (b) To specify the index of each item in the loop

- (c) To set a value for each item in the loop
- (d) To group items together in the loop
- 1-d. Select the correct directive in Vue.js used to conditionally display content based on whether an input element is in focus or not. (CO2) 1
- (a) v-on
- (b) v-bind
- (c) v-if
- (d) v-show
- 1-e. Choose the design pattern that is used by Laravel's Middleware (CO3) 1
- (a) Chain of Responsibility pattern
- (b) Adapter pattern
- (c) Template pattern
- (d) Proxy pattern
- 1-f. The following is NOT a step in the process of adding password confirmation to a Laravel registration form (CO3) 1
- (a) Add a confirmation field to the form
- (b) Update the validation rules for the password field
- (c) Update the validation rules for the confirmation field
- (d) Add a confirmation field to the database table
- 1-g. Choose the default configuration file located in Laravel (CO4) 1
- (a) app/config/
- (b) config/
- (c) database/
- (d) env/
- 1-h. Choose the correct method to select specific columns from a table in Laravel (CO4) 1
- (a) Use the select() method with an array of column names as arguments
- (b) Use the select('\*') method
- (c) Use the get() method with an array of column names as arguments
- (d) Use the all() method
- 1-i. Choose which extension should be enabled in order to use PHP's image processing functions such as imagecreatefromjpeg() and imagepng(). (CO5) 1
- (a) gd

- (b) imagick
- (c) gd2
- (d) imagick2

- 1-j. Select which of the following command that is used to stop the Laravel development server. (CO5) 1
- (a) php server stop
  - (b) laravel server stop
  - (c) php artisan serve stop
  - (d) php artisan stop

## 2. Attempt all parts:-

- 2.a. Define the steps that you can resolve dependencies in constructor injection. (CO1) 2
- 2.b. Explain the concept of expressions in Vue.js templates and how they can be used to render dynamic content on a web page. (CO2) 2
- 2.c. Discuss the purpose of the Auth::routes() method in Laravel authentication. (CO3) 2
- 2.d. Define the ways to create custom validation rules in Laravel. (CO4) 2
- 2.e. Explain the purpose of deploying with Vapor in Laravel. (CO5) 2

## SECTION B

30

## 3. Answer any five of the following:-

- 3-a. Explain Eloquent ORM, and how does it simplify database operations in Laravel. (CO1) 6
- 3-b. Discuss the steps to install additional components or packages in Laravel, such as database drivers or third-party libraries. (CO1) 6
- 3-c. Discuss the points that how do you bind a method to an event in Vue.js using template syntax. Give an example of how you would bind a method to the click event of a button. (CO2) 6
- 3-d. Discuss the differences between v-model and v-bind in Vue.js. (CO2) 6
- 3.e. Explain the working of Model-View-Controller (MVC) design pattern in Laravel. (CO3) 6
- 3.f. State the process of creating a migration in Laravel. (CO4) 6
- 3.g. Write the differences between deploying a Laravel application to a local development environment versus a production environment. (CO5) 6

## SECTION C

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**4. Answer any one of the following:-**

- 4-a. Explain that how does Laravel's "Model-View-Controller" (MVC) architecture help developers build scalable and maintainable web applications. (CO1) 10
- 4-b. Develop a Laravel application that uses Terminable Middleware to perform some post-request processing on the server-side. Your middleware should have access to the HTTP response object, and should perform some task such as logging, sending emails, or clearing cache. (CO1) 10

**5. Answer any one of the following:-**

- 5-a. Describe the v-if and v-show directives in Vue.js, including their differences and when to use each one. Provide an example of each in a template. (CO2) 10
- 5-b. You have a Vue.js application that displays a list of items and allows users to add new items. Each item has a name and a price. The price can be changed by the user. Write a Vue.js computed property that calculates the total price of all items in the list. (CO2) 10

**6. Answer any one of the following:-**

- 6-a. Explain how you can validate the input from the registration form to ensure that the username and email address are unique (CO3) 10
- 6-b. Explain Can you customize the default views and templates used by Laravel's authentication system to match my application's design. (CO3) 10

**7. Answer any one of the following:-**

- 7-a. Explain database transaction, and how does it work in the context of a Laravel application. (CO4) 10
- 7-b. Provide some examples of how Query Builder can be used to construct complex queries involving joins, subqueries, and conditional statements. (CO4) 10

**8. Answer any one of the following:-**

- 8-a. Explain how you configure SSL/TLS certificates for a Laravel application in a production environment. (CO5) 10
- 8-b. Define Docker in Laravel deployment. Discuss its role and importance in Laravel deployment. Also, explain how you can use Docker to create containerized environments for your Laravel application and deploy it to different servers (CO5) 10