END TERM EXAMINATION

FOURTH SEMESTER [BCA] JUNE 2024

Paper Code: BCAT -218   Subjects: Web Development with Python and Django

(Batch -2021 Onwards)

Time: 3 Hours   Maximum Marks: 75

Note: Attempt all questions as directed. Internal Choice is indicated.

Q1 Explain the following briefly (Any **Five**)   **[5x5=25]**

(a) What is a URL configuration and why loose coupling is important in Django?

(b) What is the use of Middlewares in Django?

(c) Explain the client-server architecture and its role in web development.

(d) What are form fields and how do you use custom widgets in Django?

(e) Explain Handling of 404, 502 pages in Django

(f) How do you handle file uploads in Django? Explain

(g) What is the purpose of filtering data in Django? Provide an example of how to filter data based on specific criteria.

UNIT -I

Q2 (a) Explain the following and also explain their role in building the front-end of a Django project. How are these technologies integrated into Django templates?   **[9]**

i) CSS   ii) JavaScript   iii) Bootstrap

(b) What is the usage of "Django-admin.py" and "manage.py"?   **[3.5]**

OR

Q3 (a) Explain the MVC and MTV design patterns in Django. What is the difference between them?   **[6]**

(b) What are the features of Django? Explain importance of virtual environment setup for Django.   **[6.5]**

UNIT-II

Q4 (a) Give a brief about the Django admin. How can you customize the functionality of the Django admin interface?   **[6]**

(b) How do you create a view with dynamic URLs in Django? Explain with an example Also describe the basic template tags and filters used in Django   **[6.5]**

OR

Q5 (a) What are the steps involved in implementing error templates in Django? How can you customize error pages for different types of errors?   **[6]**

(b) Create a view that requires authentication, such as a user profile page. Ensure that only authenticated users can access the protected view and redirect unauthenticated users to the login page.   **[6.5]**

[-2-]

UNIT -III

Q6 (a) What is the process of configuring a database in Django? How can you filter data in Django models? Give examples.   **[6]**

(b) What are Django Field Choices? How can they be used in a model? Discuss the steps involved in removing an entire Django model.   **(6.5)**

OR

Q7 (a) Describe how validation can be applied to fields in a Django model. How can you generate form fields based on model fields?   **[6]**

(b) Explain the concept of hard-coding the connection parameters when using database queries in views. What are the potential drawbacks of this approach?   **[6.5]**

UNIT -IV

Q8 (a) How can you customize the look and feel of Django admin templates? Explain the steps involved in customizing the admin templates.   **[6]**

(b) Create a Django model called "Book" with fields for title, author, publication date and ISBN. Write the necessary code to migrate the model to the database and ensure it is correctly reflected in the database schema.   **[6.5]**

OR

Q9 (a) Describe the key components required to deploy a Django project in a real-time environment. What are the considerations for an E-commerce domain application   **[6]**

(b) Explain the concept of Cross-Site Request Forgery (CSRF) protection in Django. How does Django implement CSRF protection, and why is it important?   **[6.5]**

****