1. Django’s MVT (Model-View-Template) architecture and how it handles request-response cycles.

Ans. **MVT Components**

1. **Model**: Manages the data structure and database interactions using Django’s ORM (Object-Relational Mapping).
2. **View**: Handles business logic, processes requests, retrieves data from the Model, and passes it to the Template.
3. **Template**: Responsible for rendering the HTML/CSS content sent to the user.

**Django Request-Response Cycle**

When a user makes a request, Django follows this process:

**1. User Request**

* A user makes an HTTP request by entering a URL in the browser.

**2. URL Resolver**

* Django’s **urls.py** checks if the requested URL matches any defined patterns.
* If a match is found, the corresponding view function is called.

**3. View Processing**

* The **View** processes the request.
* It interacts with the **Model** to fetch or update data as needed.
* The data is then passed to the **Template** for rendering.

**4. Template Rendering**

* The Template receives data and dynamically generates an HTML response.

**5. Response Sent**

* The generated HTML is sent back to the user's browser as an HTTP response.