

# Nirma University

## Institute of Technology

Semester End Examination (IR), December - 2022  
B. Tech. in Computer Science and Engineering, Semester-VII  
2CSDE86 Application Development Frameworks

Roll/  
Exam No.

Supervisor's Initial  
with date

Time : 3 Hours

Max Marks: 100

Instructions:

1. Attempt all questions
2. Figures to the right indicate full marks.
3. Section-wise separate answer books to be used.
4. Draw neat sketches wherever necessary.
5. Assume suitable data wherever necessary and mention the same.
6. Ensure all parts of code for all relevant files related to Django/Kivy Application are written as applicable to the asked programming question.

### SECTION-I

**Q-1** With a neat diagram discuss the Kivy architecture and significance of each component of the architecture in detail. Differentiate between Native Apps, Hybrid Apps, Progressive Web Apps. [15]  
CO4  
BL4

**Q-2** Discuss the significance of the use of Proxy Model in Django? Explain it with required code snippet related to models design and various settings in different files. [15]  
CO1  
BL2

### OR

**Q-2** What is the significance and application use of built-in and custom widgets in Django? List and discuss the same. Also, discuss the significance and application use of built-in and custom tags and filters in Django? List and discuss the same. [15]  
CO1  
BL3

**Q-3** Write complete Django code for the scenario given. [20]  
CO3

BL6 The website requires to store employee profile information. Apart from inbuilt User model fields, include following fields in the profile:

- Employee complete name
- Role (Administrator, Employee, Guest)
- Age
- Mobile Number
- Social Media Url

Use Django AbstractUser concept for employee profile. Also implement following functionalities:

- Employee registration page including UserCreationForm concept
- Employee login page
- Home page, Display sign-in user name on the home page



**SECTION-II**

**Q-4 Answer the following questions.**

**A** Design Customer Feedback Page which has Customer Name, Feedback Description and Email ID(recipient/TO email id). Once we click on Submit button, feedback details will be mailed on feedback@gmail.com. [20]  
CO3 [10]  
BL6

**B** Assume that your company receives a contract for a Social Media Platform to be developed. Discuss on what basis will you decide whether to develop a Mobile App or a Web App for the same or to develop both Mobile App and Web App? Give technical justifications. Also, distinguish between Web App and Mobile App. [10]  
CO4  
BL4

**Q-5 Write code for creating a Django application for the scenario given below:** [20]  
CO3  
BL6

- Create the User signup and login page using in build user authentication module of Django for admin user and stock market app user.
- Create model that has following fields:  
Stock Name, Stock Listing Date, Stock Sector, Stock Avg. Trade Price, Stock Previous Day Opening Price, Stock Previous Day Closing Price, Stock Current Price.
- As soon as the stock market app user sign-up's into the system and logs in, he should find the list of available stocks and all its details as per model defined.
- Each user will create a wish list by selecting the set of stocks whose price he wants to track. Create appropriate model for the wishlist.
- User can change the wish list from his login.

**Q-6** Discuss the Django Project Structure and Django App Structure. List all the files and discuss their significance in context to Django. [10]  
CO1  
BL2

**OR**

**Q-6** Discuss the significance of templates in Django. Also, discuss the templates inheritance concept with example code snippet. [10]  
CO1  
BL4

\*\*\*\*\* Best of Luck \*\*\*\*\*