



United International University

Department of CSE
CSE 465: Web Programming
Final Examination, Summer 2021

Time: 1 Hour 30 min

Full Marks: 40

[Any examinee found adopting unfair means will be expelled from the trimester / program as per UIU disciplinary rules.]

Answer all the questions. Assume any data if it is not mentioned explicitly.

1. Assume that Amazon.com, the famous American multinational conglomerate, is trying to expand their business into Bangladesh and they are planning to deploy their e-commerce server initially in the capital city, Dhaka. Based on this scenario-
 - a) What type of web scaling should they perform if they want to expand their business into other districts? Justify your answer. 5
 - b) You are looking at their homepage and you can see a lot of mixed imports of CSS and JS files as well as inline code in the HTML. Suggest three changes they should make in the code in order to improve the responsiveness of their homepage. 5
2. You are given the task of building the appointment system of a hospital. Patients, without registration, can book an appointment with a doctor by entering the preferred date, doctor's name, their name, and phone number. For this, you have created a Django app called apptservice.
 - a) Based on this scenario, create a model named **Appointment**. Write only the model class and their corresponding fields. 5
 - b) Create a form through which they can book an appointment by entering the data mentioned above. It should submit the data in url '/bookappt' via POST method. Write only the form code in your script. 5
 - c) Create a view function that will either render the html file containing the form (assume that the name of the template is bookappt.html) or receive the submitted data. 15

If data is being submitted, save the data in model, and send an Http Response giving the serial number of that patient. Serial number of the patient = (# of previous patient of that doctor on that day) + 1. [Hint: You can use count() method to get the length of a QuerySet. Use multiple filters.]

Only write the view function on the script. You cannot use class-based view.
 - d) Assume that we have an API in "/api/doctors" that gives the list of doctors available in the system. Use VueJS to fetch the list (array) of doctors, and show it as ordered list into an HTML. This HTML file will be served from Django Server. Write only the code to implement Vuejs and HTML display part. 5