1. What is the flow of information in a typical request, from when we type an address on our browser, to when we receive the response on our browser?

Typically the user will make a request in HTML; which will be sent to the server; which may or may not perform some logic and make requests to the database, then return HTML, CSS, and Javascript that may be injected with database values and may be created using simple logic.

1. What is MVC, OOP and procedural programming? Why would we use each?

Models, Views, Controller. The model describes your data, the views control what the user sees, and the template controls what the user sees, while the controller is the URL dispatcher. The controller interacts with the model and views using URL routes to spit out the appropriate data. Object Oriented Programming – grouping logically related programs in reusable classes with methods, standard properties, etc. Procedural programming is taken step-by-step and may be easier to error correct/write for small tasks

1. What is jQuery and why do we use it?
2. Consider a database with the following tables: users, friendships, where users includes id, name, and email, and friendships includes id, user\_id, friend\_id; If our friendships table includes a single association to confirm a friendship between two users, what is the QUERY to pull all of your non-friends?
3. What are some ways to make your website uniform across multiple browsers?

margin 0, padding 0, use things like webkit, use bootstrap

1. What are the differences between submitting a form via method="post" vs method="get"?

Get passes through the url and is unsecure, post is more secure and requires (in Django) a csrf\_token

1. What are the advantages/disadvantages of sending data to the server in the url vs making a post request?

You can pass numbers and other data through the url for later retrieval in your views via regex

1. Why should we never render a page on a post request.

So as to not keep re-submitting the form data

1. You notice that when you click submit on a form, your app breaks. Describe how you would approach debugging this problem.

First thing would be to check the form action, see If its correctly written, then go into views and use print statements to see which place is breaking

1. What are a couple security threats and how do we defend against them?

csrf tokens, SQL injections, BCrypt

1. What is the difference between Session, Post, and Cookies?

Cookies are bits of user information stored on the client side for later retrieval, sessions data is stored as cookies

1. Explain why and when we use session.

To store user data to ease experience – like keeping people logged in; NOT for long term permanent storage

1. What is an ORM and why do we use it?  What are its advantages and also its disadvantages.

Object Relational Mapping

1. In your models, you may make a class User with the following code: class User(models.Model): Why do we have models.Model inside the parentheses?
2. In your models, you may make a class UserManager with the following code: class UserManager(models.Manager): Why do we have models.Manager inside the parentheses?
3. What is self and why does it appear in methods that we define in a class?

it is a reference to the class itself

1. What is the \_\_init\_\_ method in a class?

The set of procedures a class will follow upon startup

1. Name 2 HTTP Verbs and when would we use each
2. What is RegEx and what do we use it for?
3. On large web applications, what are the benefits of using a framework?
4. What does a templating engine do for us?
5. What are 3 different type of database table relationships?
6. Why do we use routes and how do they work?
7. What is a virtual environment and why do we use it?
8. Explain what this code does: “from flask import Flask”.
9. What is the importance of normalizing your database?
10. What is an API?

application programming interface

1. What is AJAX and why do we use it?

A front end dynamic framework for updating without fully refreshing

1. What is the difference between an HTTP request/response and an AJAX request/response?
2. What is the difference between client and server validation, and when do we use either or both?
3. What are the major differences between Flask and Django?
4. (VB) What are differences between tuples, lists, and dictionaries.