1. If you named a field (column) inside a table “First Name”, would that be a good name for a that field? If not, how would you change it?

*“First Name” would not be a good name for a SQL column because whitespace is ignored, and the names are not case sensitive. A better alternative would be to use a “snake case” title such as “first\_name.”*

1. What are the two differences between varchar and char?

*The primary difference between char and varchar lies in the fact that char values are always the exact same length, ignoring or adding characters to fit that length, whereas varchar values can be of any length up to the specified limit. In addition, char values have an upper limit length of 255 (one byte), while varchar can support field lengths of over 65,000 which often leads to better performance when searching char values.*

1. What are the two differences between mediumint and int?

*The differences between int and mediumint are the minimum and maximum values. The range of int supports a range of values in four bytes, while mediumint supports only three bytes.*

1. How would the datatype datetime display its data if the date was January 1, 1976 and the time was 1:15 PM? Hint: Military-wise.

*January 1, 1976 at 1:15 PM would be displayed by datetime as: 1976-01-01 13:15:00.*

1. Write a line of SQL code showing that the data switches between genders, male and female, respectively. Set a gender to be the default value.

*The following SQL command will create a column that allows two gender values with male as the default value:*

*ALTER TABLE `users` ADD `gender` ENUM('male','female') BINARY NOT NULL DEFAULT 'male';*

1. How would you access MySQL from the command line on your PC. For this question, if you are not running SQL on your PC, you may assume ‘your PC’ is the school’s PC.

*In a system running XAMPP, I believe MySQL is accessed by the command:* C:\xampp\mysql\bin\mysql.exe -u root*, but in my case I use the command:* docker exec -it mysql -u root.

1. How would you access MySQL phpMyAdmin GUI from the browser?

*In XAMPP phpMyAdmin can be accessed in the browser at: http://localhost/phpMyAdmin, but in my case, I navigate to localhost:3306.*

**For 8-10, consider a database called “RCC” and a table called “student” with the fields (columns) “user\_id”, “first-name”, “last\_name”, “phone number”, “date enrolled”,“email”, and “password”.**

1. Check to make sure that the fields are good, legal field names. Fix those that are not. Give me the data types and lengths associated with each field.

user\_id UNSIGNED MEDIUMINT(8)

first\_name VARCHAR(20)

last\_name VARCHAR(40)

phone­\_number UNSIGNED BIGINT(10)

date\_enrolled DATETIME

email VARCHAR(60)

password CHAR(128)

1. Write the SQL statements showing how to create the database and the table with the corresponding fields.

CREATE TABLE `RCC`.`students` ( `user\_id` MEDIUMINT(8) UNSIGNED NOT NULL AUTO\_INCREMENT , `first\_name` VARCHAR(20) NOT NULL , `last\_name` VARCHAR(40) NOT NULL , `phone\_number` BIGINT(10) UNSIGNED NOT NULL , `date\_enrolled` DATETIME NOT NULL , `email` VARCHAR(60) NOT NULL , `password` CHAR(128) NOT NULL , PRIMARY KEY (`user\_id`)) ENGINE = InnoDB CHARSET=utf8mb4 COLLATE utf8mb4\_unicode\_ci;

1. Write the SQL statement to insert the first record. You may make up the information listed in the database. (see Pg. 127)

INSERT INTO `students` (`user\_id`, `first\_name`, `last\_name`, `phone\_number`, `date\_enrolled`, `email`, `password`) VALUES ('10', 'Tom', 'Jones', '7025278342', NOW(), 'vegas@email.com', SHA1('mypassword02'));