CSE211 – COMPUTER ORGANIZATION AND DESIGN

ONLINE ASSIGNMENT 1

Note: 1. Each question carry 10 marks.

2. Last date of online assignment submission is September 26, 2021 (Sunday).

3. This assignment submission is not a group activity, so every student is advised to individually work on the assigned tasks to complete the activity as per defined timeline.

4. Copying the contents of others is not allowed.

5. Do not share your assignment file with anyone. And do not indulge in any malpractice as Sharing the file/copying the contents may affect your assignment result.

6. Include the supporting diagram(s)/figure(s)/Truth table(s)/expression(s), as applicable, to better explain your answer.

Section: K20BE   **Total marks**: 30

Q1: As you know that transferring information among registers in any multiple register configuration is a common bus system. So, explain this register transfer through bus system in which it has to be constructed with three-state gates instead of multiplexers.   [10]

Q2: Logic Microoperations specify binary operations for strings of bits stored in registers. Write the special symbols used to represent Logic Microoperations. Assume a scenario to derive different logic microoperations that should have two binary variables only. Design the truth table for functions of two variables alongwith possible sixteen microoperations atleast.
                                                                                                                [10]

Q3: Explain a 4-bit arithmetic circuit alongwith its function table. Answer must include diagram of 4-bit arithmetic circuit too.   [10]