BRAC UNIVERSITY

BRAC University

Dept. of Computer Science and Engineering

Quiz 2: Full Marks: SET

Name:

20 min 10 **A**

Semester: Fall 2023 Course Code: CSE251

Course Code: CSE Section:

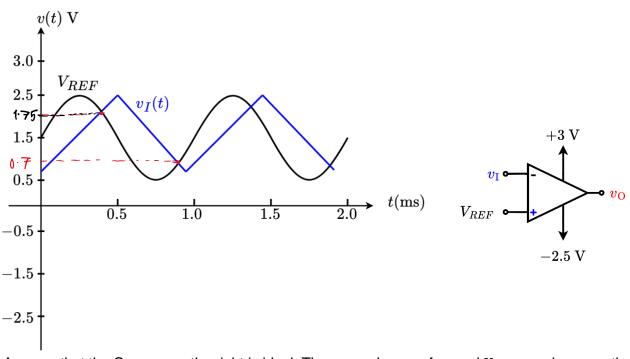
Course Name: Electronic Devices and Circuits

Student ID:

- No washroom breaks. Phones must be turned off. Using/carrying any notes during the exam is not allowed.
- At the end of the exam, the exam script must be returned to the invigilator.
- ✓ Marks allotted for each question are mentioned beside each question.
- Write your answers inside the indicated boxes (where applicable). If you run out of room for an answer, please continue on the back of the page".
- Symbols have their usual meanings.

Question 1[CO2]

4 Marks

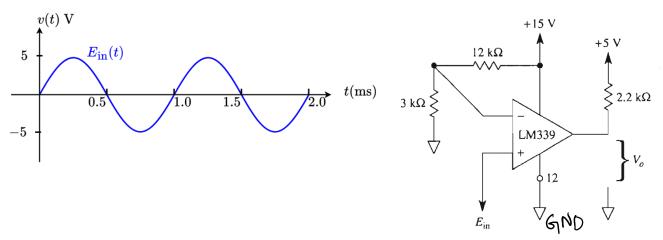


Assume that the Op-amp on the right is ideal. The wave shapes of v_I and V_{REF} are shown on the adjacent graph.

- **Draw** the waveshape of the output voltage of the op-amp $v_0(t)$ on the graph provided above. Indicate the time (t) in which switching would occur in $v_0(t)$.

Question 2 [CO2]

6 Marks



Assume that the Op-Amp on the right is ideal. Answer the following questions.

- i. Sketch accurately the graphs of V_0 vs $E_{\rm in}$.
- ii. Sketch accurately the graphs of V_0 vs t. Find out the time (t) in which switching would occur in $V_0(t)$.