

true

MID-TERM EXAMINATION # 1

10:30 PM – 11:20 AM

November 29, 2018

This exam has two (2) questions on six (6) pages. The marks for each question are as indicated. There are a total of 9 marks. Answer all questions. Write your answers and all rough work in this paper and nowhere else. Show your work. Draw a box around your final answer. Numerical answers must include units. Books and notes are allowed. No electronic devices other than calculators are allowed. **Show your work.**

This exam paper is for:

Exam 1 A00123456

Each exam is equally difficult.

Answer your own exam.

Do not start until you are told to do so.

Name: _____

BCIT ID: _____

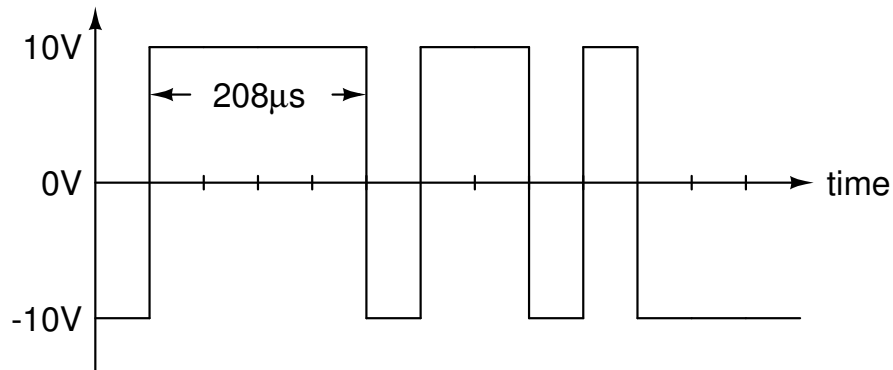
Signature: _____

Question	Mark	Max.
1		5
2		4
Total		9

Question 1

5 marks

The following diagram shows a byte transmitted over an RS-232 serial interface with 8 bits per character, one parity bit and one stop bit:



- What is the bit rate?
- What is the value of the character transmitted, in hexadecimal?
- What character was transmitted (give the letter, number or symbol)?
- Assuming there were no errors, was even or odd parity used?

Question 2

4 marks

The Unicode codepoint for the Alarm Clock (🕒) Emoji is **U+23F0**.

- How many bytes are required for a UTF-8 encoding of this character?
- What are the values of those bytes? Give your answer in hexadecimal.

Show your work.

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This exam paper is for:

Exam 2 A00123456

Each exam is equally difficult.

Answer your own exam.

Do not start until you are told to do so.

Name: _____

BCIT ID: _____

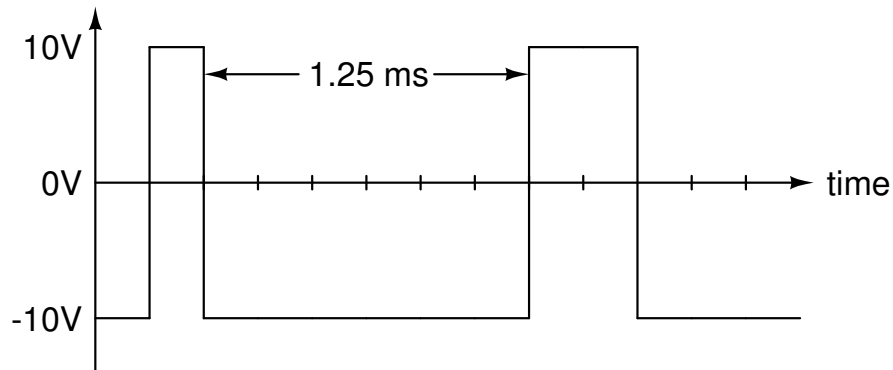
Signature: _____

Question	Mark	Max.
1		5
2		4
Total		9

Question 1

5 marks

The following diagram shows a byte transmitted over an RS-232 serial interface with 7 bits per character, one parity bit and one stop bit:



- What is the bit rate?
- What is the value of the character transmitted, in hexadecimal?
- What character was transmitted (give the letter, number or symbol)?
- Assuming there were no errors, was even or odd parity used?

Question 2

4 marks

The Unicode codepoint for the White Smiling Face (😊) Emoji is **U+263A**.

- How many bytes are required for a UTF-8 encoding of this character?
- What are the values of those bytes? Give your answer in hexadecimal.

Show your work.