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## UNIVERSITI TUN HUSSEIN ONN MALAYSIA

# FINAL EXAMINATION (TAKE HOME) SEMESTER I SESSION 2021/2022

**COURSE NAME** 

**IOT DEVICES AND** 

APPLICATION

**COURSE CODE** 

MET10204

PROGRAMME CODE

**MET** 

**EXAMINATION DATE** 

JANUARY/ FEBRUARY 2022

**DURATION** 

3 HOURS

INSTRUCTION

ANSWERS ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES

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#### MET10204

Q1 Develop an IoT application system using Node MCU ESP8266 circuit and ThingSpeak IoT platform. This developed system allows users to control the rotation of the servo motor using the IoT Platform which able to turn a servo motor attached to the Node MCU ESP8266 board to turn on with full speed anticlockwise or turn off. Please refer to the youtube video link included as a guide.

#### https://youtu.be/LLTy2SR48BQ

You are required to provide:

(a) Create schematic diagram of your circuit by applying a servo motor.

(20 Marks)

(b) Create Arduino programming code of the system by applying IoT framework.

(30 Marks)

Q2 Based on your developed system in question Q1, Evaluate the performance of the system where you can provide a snapshot or video of your system showing your IoT dashboard and overall system which is functioning as desired.

(50 Marks)

- END OF QUESTIONS -