

International Islamic University Chittagong (IIUC)

Department of Computer and Communication Engineering (CCE)

Mid Term Examination

Program: B.Sc. (Engg)

Course Code: CCE-4719

Time: 1 hour 30 minutes

Semester: Spring 2022

Course Title: Internet of Things (IoT)

Full Marks: 30

(i) Answer all the questions. The figures in the right hand margin indicate full marks.

(ii) Course Outcomes (COs) and Bloom's Level are mentioned in additional Column.

Course Outcomes (COs) of this course	
CO1	Able to understand the application areas of IOT.
CO2	Able to realize the revolution of Internet in Mobile Devices, Cloud & Sensor Networks.
CO3	Able to understand building blocks of Internet of Things and characteristics.

Bloom's Level of the Questions						
Letter Symbols	R	U	Ap	An	E	C
Meaning	Remember	Understand	Apply	Analysis	Evaluate	Create

- [1] (a) What **features** make your refrigerator an **IoT refrigerator**? U CO1 3
Explain.
- (b) Where does **IoT** fit in the **evolution of the Internet**? Discuss with U CO1 3
Example.
- (c) Evaluate IoT as the building block of **Industry 4.0**. E CO1 4
- [2] (a) List the challenges that are driving new **network architecture for IoT** from traditional IT network. R CO1 2
- (b) Describe each challenge mentioned in [2] (a) and also Explain the required **IoT architectural changes** for each of them. An CO1 5
- (c) Most IoT networks start from the object, or "thing" that needs to be connected. How do you **classify smart objects**? An CO1 3
- [3] (a) Write short notes on: An CO2 6
1. **Edge Computing**
2. **Fog Computing**
3. **Cloud Computing**
- (b) Illustrate **IoT Reference Model** published by the IoTWF. An CO2 4

OR

- [3] (a) Distinguish between **CoAP** and **MQTT** in the context of using IoT Ap CO2 4
network management sub-layer protocol.
- (c) **Evaluate** the implementation of Edge computing in the context of E CO2 6
IoT **smart Home**.