JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATIONS-2022

M.Tech-I Semester II (ECE-IoT)

COURSE CODE (CREDITS): 21M1WEC236 (3) MAX. MARKS: 25

COURSE NAME: SMART INERNET OF THINGS

COURSE INSTRUCTORS: Dr. Rajiv Kumar MAX. TIME: 1 Hour 30 Min

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Q1. A) As the developer of hard real-time applications, explain the features that you consider necessary for a Real-Time Operating System (RTOS) to support. [2]

B) What is a watchdog timer? Explain the use of watchdog timer using an example. [1.5+1.5=3]

Q2. A) Give an example of real-time application for which a simple segmented management support is preferred. Justify your choice. [1.5+1.5=3]

B) In embedded real-time applications, explain two pros and two cons of using virtual memory. [1+1=2]

Q3. A) How smart operation is different from manual operation? Explain the control of your General Electric oven with Brillion app. [1.5+1.5=3.0]

B) Give two valid reasons why smart appliances sale is not increasing. [1+1=2]

Q4. A) What is concept of smart maintenance? Explain the use of LG's Smart Diagnosis app in troubleshooting. [1.5+1.5=3]

B) Highlight three benefits of using automation in homes. [2]

Q5. A) What are six important components of Smart Home? [3]

B) With reference to Smart Home automation, give details about the smart steps those are necessary to build a smart home. [2]