

Reg. No.:

Name:



VIT

Vellore Institute of Technology

Continuous Assessment Test-I August 2022

Programme	B.Tech (CSE and its specialization)	Semester	Fall 2022-2023
Course	IoT Fundamentals	Code	ECE 3501
Faculty	Dr Kanchana Devi V	Class Nbr	CH2022231000244
Time	1 ½ Hours	Slot	F2
		Max. Marks	50

Answer all Questions

IoT is widely applied in smart farming sector to support good yield in agriculture. Discuss the characteristics of an IoT system for this smart farming where process such as crop monitoring, automated irrigation and cattle monitoring is involved. 10

Smart Parking make the search for parking space easier and convenient for drivers. Smart Parking are powered by IoT Systems that detect the number of empty parking slots and send information over internet to smart parking application back-ends. These applications can be accessed by the drivers from smart-phones, tablets and in-car navigation systems. For designing this smart parking system, identify and explain a suitable communication model with appropriate illustration. 10

Livestock Monitoring is about animal farming and cost saving. IoT is used to gather data about the health and wellbeing of the cattle. Your task is to design and explain the block diagram of IoT devices employed to support this Livestock monitoring. 10

Discuss the suitable network layer, transport layer and application layer protocols that fits the requirements of the Livestock Monitoring application. 10

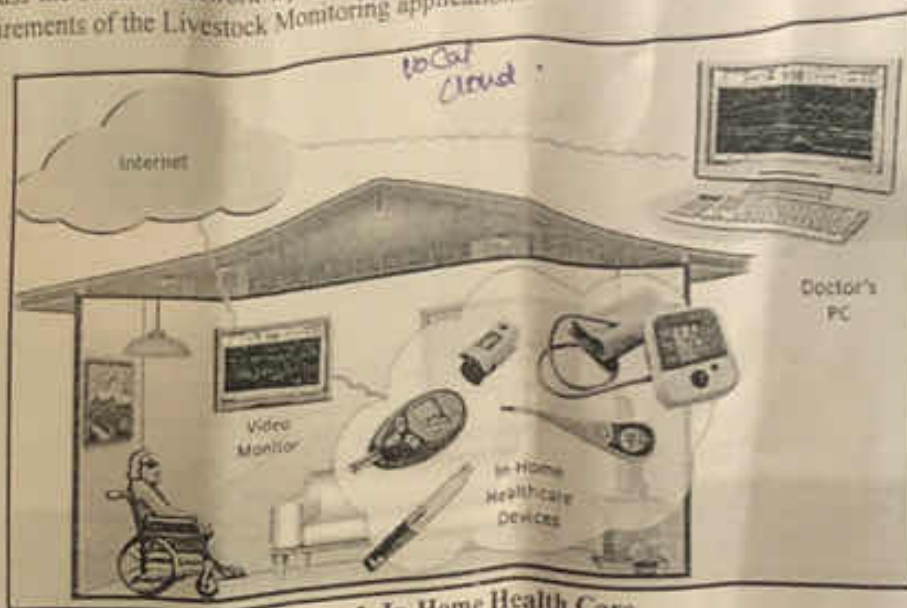


Figure 1. In-Home Health Care

For the given application (Figure 1), discuss the functional blocks of IoT system based on its logical design.