21ES614 – Internet of Things (60:40)

	Components	Marks	Instrument	Guidelines/Remarks
1	Mid-Term Examination	30		
1.1	Mid-Term Examination	30	Pen & Paper	2 hours – 50 marks; converted to 30 marks.
2	Lab Experiment Evaluation	30		
2.1	Lab Evaluation 1	9	Lab/Kit/PC/Work table	Sensing – 2, Processing – 1, Actuation – 1, Signal Conditioning – 1, IoT Platforms – 3, Remote control - 1
	Development of IoT end nodes with Ubidots/Adafruit/ThingSpeak			
2.2	Lab Evaluation 2	6	Lab/Kit/PC/Work table	NetSim – 3 Wireshark – 3
	NetSim - IoT network simulation & Wireshark packet data extraction			
2.3	Lab Evaluation 3	7.5	Lab/Kit/PC/Work table	Aggregation – 2.5, Computing – 2.5, Communication – 2.5
	IoT edge device – aggregation, computing & communication			
2.4	Lab Evaluation 4	7.5	Lab/Kit/PC/Work table	Server – 2.5, UI – 2.5, Database – 2.5
	Implementation of a server with database and UI			
3	Project	40		
3.1	Project	40		
	IoT solution for Real world application	7.5	Lab/Kit/PC/Work table/Viva-voice	Topic – 2.5, Component Selection – 2.5, Demonstration – 2.5
	IoT nodes	7.5		End (min 2) / Edge (min 1) nodes – 2.5 marks each
	Server/Cloud with UI & database	7.5		UI – 2.5, Database – 2.5, Edge/Fog/Cloud Computing – 2.5
	IoT Technologies	7.5		IoT Concepts – 2.5, Tools/frameworks – 2.5, Comprehension – 2.5
	Report	10	Report	Format – 3, Technical Content - 7
	Total	100		