Duration: 3hrs **[Max Marks:80]**

N.B. : (1) Question No 1 is Compulsory.
(2) Attempt any three questions out of the remaining five.
(3) All questions carry equal marks.
(4) Assume suitable data, if required and state it clearly.

Q.1		**Answer any four questions**	**20**
	i.	Draw and explain IoT Level 5.	
	ii.	What are the technological issues in RFID IoT system design	
	iii.	Differentiate between MQTT and HTTP Protocol.	
	iv	What are the Features of constrained environment for IoT/M2M?	
	v	Justify the statement with suitable example "IoT systems have to be self - adapting and self configuring"	
Q2	A	Explain the first four steps of IoT Design Methodology with a suitable example.	10
	B	Explain data acquiring and storage process of data handling in IoT.	10
Q3	A	Describe REST based Communication API. What are architectural constraints of REST.	10
	B	Explain NB-IoT and LoRaWAN .	10
Q4	A	Examine and discuss the use of GPIO pins and what is the use of SPI and I2C interfaces on Raspberry Pi.	10
	B	Draw the process diagram, domain model and services for any home automation system.	10
Q5	A	Explain the ACID Rules and CAP Theorem.	10
	B	Explain how the following electrical parameters are used as a part of sensing Technology: a) Capacitance and b) reverse saturation current of PN Junction	10
Q6		Write Short Notes on	20
	A	CoAP Protocol.	
	B	Features in Xively cloud platform.	
	C	Compare IPv4 and IPv6	
	D	Cloud deployment models.	

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