

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: MCA
BRANCH: MCA**

**SEMESTER : V
SESSION : MO/2022**

SUBJECT: CA631 INTERNET OF THINGS

TIME: 3:00 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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	BL	CO	Marks
Q.1(a) Describe the characteristics of IoT.	2	1	[2]
Q.1(b) Outline different reasons for Uptake of M2M and IOT.	3	1,2	[3]
Q.1(c) Explain main design principles and needed capabilities of IOT.	5	1,2	[5]
Q.2(a) Define the terms Reference Model and architecture in IOT.	1,2	2	[2]
Q.2(b) Discuss trust and security in IOT.	2	3	[3]
Q.2(c) Design a neat sketch, discuss the M2M high-level ETSI architecture	4	4	[5]
Q.3(a) Define characteristics of IEEE 802.11 protocol.	1	1	[2]
Q.3(b) Describe major differences between ZigBee and Wi-Fi	4	3	[3]
Q.3(c) How does data link layer work for IoT devices explain it?	4	4	[5]
Q.4(a) Define characteristics of TCP.	1	2	[2]
Q.4(b) Differentiate TCP and UDP.	5	3	[3]
Q.4(c) Explain MQTT publish/subscribe framework.	5	4	[5]
Q.5(a) Outline the purpose of application layer in IoT protocol?	2	1,2	[2]
Q.5(b) Analyze architectural constraints of REST.	4	3	[3]
Q.5(c) Explain oneM2M in a nutshell.	4	3,4	[5]

:::28/11/2022:::E