

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

**CLASS: MTech
BRANCH: CSE**

**SEMESTER : I
SESSION : MO/2024**

SUBJECT: CS534 INTERNET OF THINGS

TIME: 3 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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		CO	BL
Q.1(a) Briefly describe different components of IoT based system.	[5]	1,2	2,3
Q.1(b) Analyze IoT reference architecture with a suitable diagram.	[5]	3	4
Q.2(a) What are different topologies applicable for IoT. Explain it with diagrams.	[5]	2,3	2,3
Q.2(b) Evaluate routing protocols for IoT based system with comparative analysis.	[5]	4	5
Q.3(a) Write the role of service discovery protocol to recover related process or concern devices using suitable diagrams.	[5]	4	4
Q.3(b) Discuss communication protocol based on the exchanges of messages (MQTT)and also write steps to implement it.	[5]	3	4
Q.4(a) Evaluate the process related with different kinds of business in IoT based system with a specific diagram.	[5]	3	4
Q.4(b) Briefly describe every thing as a services (XaaS) using related examples.	[5]	4	3
Q.5(a) Analyze different security protocols (IP Security and Datagram transport layer security with suitable steps.	[5]	4	4
Q.5(b) Briefly describe any one of the mentioned points: Smart traffic system, Smart homes and smart parking.	[5]	5	4,5

:22/11/2024:E