

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

CLASS: MTech
BRANCH: IT

SEMESTER: II
SESSION: SP/19

SUBJECT: IT518 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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- Q.1(a) Illustrate the role of gateways in IoT systems [5]
Q.1(b) Differentiate between M2M and IoT with example. [5]
- Q.2(a) Elaborate on the IoT domain model. Illustrate with an example [5]
Q.2(b) Elaborate on how the complexity of the systems in the functional model goes on increasing, with diagrams. [5]
- Q.3(a) For the Bluetooth protocol explain: a) the method of connection establishment b) modes of operation [5]
Q.3(b) What are the components of a Zigbee network? Explain the formation of a Zigbee network. [5]
- Q.4(a) For COAP summarize the following interactions with example: a) Request - response b) Dealing with packet loss. [5]
Q.4(b) What are the control messages in RPL and how are they used to make a DODAG formation? [5]
- Q.5(a) Evaluate the various methods to improve the security in IoT. [5]
Q.5(b) Describe, as an implementation example, a Smart IOT healthcare system. [5]

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