

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.

- 1 Attempt any FOUR [20]**
- a Differentiate between IoT and M2M.
 - b Explain the publish subscribe communication model.
 - c What are the barriers to IoTs value creation?
 - d Draw and explain IoT level 5 system.
 - e Explain how map reduce is used for batch data analysis.
- 2 a How Sigfox connectivity technology is used for IoT. [10]**
- b Explain how healthcare applications function in Industrial IoT. [10]**
- 3 a Explain AMQP protocol in detail with diagram. [10]**
- b Explain Augmented and Virtual reality in relation to Industry 4.0. [10]**
- 4 a Explain in detail the design challenges and solutions of IoT for Industry 4.0. [10]**
- b Explain structural health monitoring using IoT with neat diagram. [10]**
- 5 a Explain the steps involved in IoT design methodology. [10]**
- b Explain Puppet configuration management tool with diagram and multi -tier deployment using Puppet. [10]**
- 6 a Explain human machine interaction in Industry 5.0. [10]**
- b Explain use of Apache storm in real time data analysis. [10]**
