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S.E. (Artificial Intelligence & Data Science)
INTERNET OF THINGS
(2019 Pattern) (Semester - IV) (217529)

Time : 2½ Hours]　　　　　　　　　　　　　　　　　　　*[Max. Marks : 70*

Instructions to the candidates:

1) *Attempt Questions Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*

2) *Draw neat and Clean diagrams.*

3) *Assume suitable data, if necessary.*

Q1) a) Explain with the help of a neat diagram the components of IOT with pros and cons? **[9]**

b) With the help of following sector justify how IOT technology impacting on end to enduser. **[9]**

　　i)　Big Data Analytics

　　ii)　Telematics

　　iii)　Home Automation

OR

Q2) a) Explain in brief SCADA with block diagram and SCADA functionality with middleware structure? **[9]**

b) How IOT plays an important role in smart city, smart appliances, smart parking, smart lightning? **[9]**

Q3) a) Explain Block diagram of RFID system with frequency ranges? Explain any two strengths and weaknesses of RFID over Barcode? **[9]**

b) Explain with the help of a neat diagram cellular Machine to Machine application network? **[8]**

OR

Q4) a) Differentiate MQTT and CoAP Protocol? **[9]**

b) Explain advanced message queuing protocol with architectural diagram? **[8]**

P.T.O.

Q5) a) Why is security required in IOT? Explain in detail various security models in the Internet of Things. **[10]**

b) What is threat analysis in the Internet of Things? Explain details of threat analysis. **[8]**

OR

Q6) a) What is Internet of Things security tomography? Explain in detail layered attacker model? **[10]**

b) Explain Analog and digital sensors with 2 examples each? **[8]**

Q7) a) Write a detailed business model scenario for the Internet of Things. **[7]**

b) Explain in detail application of Internet of Things in city automation and home automation. **[10]**

OR

Q8) a) Write applications of Internet of Things for e-health body area network.**[7]**

b) Explain in detail business model and business innovation in the Internet of Things. **[10]**

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