**P1594**

**[6002]-224**

# 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 Next Generation Kiosks & smart vending machines in detail?**[9]**

b) Justify how the asset management impacts on end to end users by integrating IOT technology? **[9]**

**OR**

*Q2)* a) Explain in brief Smoke for gas detection and Air quality monitoring?**[10]**

b) How is security a big concern in IOT? How do IDS work in IoT? **[8]**

*Q3)* a) Differentiate M2M and IoT? Also differentiate COAP and MQTT? **[8]**

b) Explain the IOT System working block with the help of Control units, Communication Modules and Sensors? **[9]**

**OR**

*Q4)* a) Explain Link layer protocol like ethernet, Wi-Fi, WiMax, Zigbee in Protocol architecture? **[9]**

b) How information is exchanged in real time without human intervention?**[8]**

*Q5)* a) Describe Cloud of Things. Explain how cloud is an integration of Grid Computing and SOA. **[10]**

b) Explain on Devices Security and Privacy of IoT cloud. Why do we need IoT Security? **[8]**

**OR**

*Q6)* a) Describe the need of semantic web technology and business impacting IoT? **[10]**

b) Explain in detail vulnerabilities of Internet of Things. **[8]**

*Q7)* a) Discuss Cloud computing. Explain the setup of a cloud environment in an IoT? **[10]**

b) What are IoT design ethics, explain? **[7]**

OR

*Q8)* a) How does Vehicle-to-Vehicle (V2V) communication enhance safety and efficiency in the Internet of Things (IoT) ecosystem? **[10]**

b) Elaborate on how you will use IoT for remote healthcare. **[7]**

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