B033415(033)

B. Tech. (Fourth Semester) Examination, April-May 2021

(Information Technology Branch)

INTERNET of THINGS

Time Allowed : Three hours

Maximum Marks : 100

Minimum Pass Marks : 35

*Note : Attempt all questions. Part (a) from each question is compulsory. Attempt any **two** parts from part (b), (c) and (d) of each question.*

Unit-I

1. (a) Define IOT and its characteristics.   4

   (b) Discuss various designs of IOT.   8

(c) What are various functional blocks of IOT? 8

(d) Define various communication models and API's of IOT. 8

Unit-II

2. (a) What is M2M? 4

(b) Describe various gateways used in M2M. 8

(c) What is the difference between IOT and M2M? 8

(d) Write short notes on SUN. 8

Unit-III

3. (a) Define the term NFV. 4

(b) Describe physical design of IOT. 8

(c) Explain various issues involved in accessing the wireless media in IOT. 8

(d) What is short range MAL layer protocol? Describe any one protocol in this. 8

Unit-IV

4. (a) Write short notes on various design challenges in IOT. 4

(b) Explain the evolution and various application areas of IOT. 8

(c) "Is Home Automation brings the new evolution in IOT", Justify? 8

(d) Briefly explain survellance application. 8

Unit-V

5. (a) Discuss various tools of IOT. 4

(b) How various application are developed using IOT tools? 8

(c) Discuss various area of IOT focused on frontier tech like Robotics, AI and bioengineering. 8

(d) Write short notes on : 8

(i) Raspberry Pi model

(ii) STM32 LoRa WAN Board