

Reg. No.

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**CSH 201**

**II Semester M.Sc. Examination, Sept./Oct. 2022**  
**COMPUTER SCIENCE**  
**Internet of Things**

Time : 3 Hours

Max. Marks : 70

**Note :** Answer *any five* questions.

1. a) Why do IOT systems have to be self adapting and self-configuring ? 6  
b) What are the different communication models of IOT ? Explain them briefly. 8
  2. a) Discuss the designing of smart street lighting in smart cities. 7  
b) Explain big data analytics and cloud computing. 7
  3. a) What is M2M ? Explain briefly about the various applications of M2M. 7  
b) Define NFV. Briefly explain the layers of NFV. 7
  4. a) Explain the components involved in managing a network device with SNMP. 7  
b) Discuss in detail about NETOPEER. 7
  5. a) Explain the features of python programming language. 7  
b) Compare and contrast between python list and tuple with suitable code examples. 7
  6. a) What is the use of SPI and I2C interfaces on Raspberry Pi ? Explain. 7  
b) Write a Python program to turn on and turn off an LED for every two seconds on Raspberry Pi board. 7
  7. a) Define WAMP. Explain the key components of WAMP. 8  
b) Explain the procedure to use Xively. 6
  8. a) Explain in detail about Django. 8  
b) Write a short note about following : 6  
i) XML ii) JSON
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