



BMSCOLLEGE OF ENGINEERING, BANGALORE-19

(Autonomous Institute, Affiliated to VTU)

Department Name: Computer Science and Engineering

SECOND INTERNALS

Course Code: 20CS5PCIOT

Course Title: Internet Of Things

Semester: 5th (A,B,C)

Max Marks: 40

DATE: 02/12/2020

Faculty Handling the Course

Dr.K.Panimozhi

Instructions: Internal choice is provided in Part C.

PART-A

Total 5 Marks (No choice)*

No.	Question	Marks
1	List the advantages of Wifi technology and how WiFi benefits for enterprise IoT networking	05

PART-B

Total 15 Marks (No Choice, each question should be maximum of 5 marks)*

No.	Question	Marks
2a.	Construct DODAG instances, Where DAG instance 1 should have High quality links– no battery operated nodes Physical topology LBR 5 10 13 11 12 20 21 22 23 24 31 32 33 34 35 Battery operated node --- Poor quality (LQL=3) - - - Fair quality (LQL=2) — Good quality (LQL=1) Latency in milliseconds	05
2b.	Demonstrate with appropriate diagram how Quality of service is ensured in MQTT.	05
2c.	Justify why CoAP protocol is suitable than HTTP protocol.	05

PART- C

Total 20 marks (Choice is between (3a or 3b) and (4a or 4b))

No.	Quest	Marks
3a.	Design and implement a system to control the home appliances using two Bluetooth modules.	10
OR		
3b.	In a warehouse the products having the tag value="123abc456789" have to be grouped as Mobile phone else group it as Miscellaneous. Design an IOT system to group the products.	10
4a.	Write and explain the commands to configure two ESP8266 modules as access point and station respectively. Use this Configuration to switch on the LED from the commands received from the station	10
OR		
4b.	Design and implement Gas leakage alert system using appropriate hardware components, system should make a call and SMS as alert to the user.	10