AR - 18   Reg. No. ☐☐☐☐☐☐☐☐☐☐

GIET MAIN CAMPUS AUTONOMOUS GUNUPUR – 765022

B. Tech Degree Examinations, June – 2021

(Sixth Semester)

BELOE6050/ BEEOE6050 – INTERNET OF THINGS

Time: 2 hrs   Maximum: 50 Marks

Answer ALL Questions

The figures in the right hand margin indicate marks.

PART – A: (Multiple Choice Questions)   **(1 x 10 =10 Marks)**

Q.1. Answer **ALL** questions   [CO#]   [PO#]

a. ------- is a bi-directional, fully duplex communication model that uses a   CO-1   PO-1
persistent communication between the client and server
   (i) Push – Pull   (ii) Publish – Subscribe
   (iii) Request – Response   (iv) Exclusive Pair

b. --------------: Each request from client to server must contain all the information   CO-1   PO-1
necessary to understand the request.
   (i) Cache-able   (ii) Stateless
   (iii) Client – Server   (iv) Layered System

c. ---------- is a technology that leverages virtualization to consolidate the   CO-2   PO-1
heterogeneous network devices onto industry standard high volume servers,
switches and storage.
   (i) NFV   (ii) SDN
   (iii) Both (a) and (b)   (iv) None

d. Say True or False :   CO-2   PO-1
"SNMP protocol that allows monitoring and configuring network devices such
as routers, switches, servers, printers etc.
   (i) True   (ii) False

e. ---------- is a representation of the physical entity in the digital world.   CO-3   PO-1
   (i) Device   (ii) Resource
   (iii) Virtual Entity   (iv) Service

f. ---- is a mapping datatype or a kind of hash table that maps keys to values   CO-3   PO-1
   (i) Tuples   (ii) List
   (iii) Dictionary   (iv) Number

g. ---------- is a low-cost mini computer with the physical size of a credit card.   CO-4   PO-1
   (i) Raspberry Pi   (ii) SMPS
   (iii) Both (a) and (b)   (iv) None

h. The function SD card access is done by the Raspberry Pi status LED ------   CO-4   PO-1
   (i) LNK   (ii) PWR
   (iii) ACT   (iv) FDX

i. ---------- typically refers to networking of machines for the purpose of remote   CO-2   PO-1
monitoring and control and data exchange.
   (i) M2M   (ii) I2M
   (iii) Both (a) and (b)   (iv) None

j. Which of the following is the wireless sensor networks? --------------   CO-1   PO-1
   (i) Wealth Monitoring System   (ii) Surveillance System

(iii) Smart Grids   (iv) All the above

PART – B: (Short Answer Questions)   **(2 x 5 = 10 Marks)**

Q.2. Answer **ALL** questions

		[CO#]	[PO#]
a.	What are the different types of functional blocks available in IoT?	CO-1	PO-1
b.	What do you mean by YANG?	CO-2	PO-1
c.	What is the role of Data Model Manager?	CO-2	PO-1
d.	What is the difference between Physical and Virtual Entity?	CO-3	PO-1
e.	Why do we call Raspberry Pi is an exemplary device?	CO-4	PO-1

PART – C: (Long Answer Questions)   **(6 x 5 = 30 Marks)**

Answer **ANY FIVE** questions

		Marks	[CO#]	[PO#]
3.	With neat diagram, explain the different types of layers available in IoT Protocols.	(6)	CO-1	PO-1
4.	Determine the IoT levels for designing home automation IoT systems including Smart Lighting and Intrusion detection.	(6)	CO-1	PO-2
5.	Expand and Explain SDN.	(6)	CO-2	PO-1
6.	List out the Network Operator Requirements.	(6)	CO-2	PO-1
7.	What are the different types of Datatypes and Data structures available in Phython? Explain each one of them.	(6)	CO-3	PO-1
8.	How do you implement files in Phython? Give an example.	(6)	CO-3	PO-1
9.	How do you control LED with Raspberry pi?	(6)	CO-4	PO-1
10.	Whether does Raspberry Pi support various flavours of Linux? If yes, specify it in detail.	(6)	CO-4	PO-2

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