

B.TECH./ECE/ODD/SEM/R18/ EC702C/2020-2021

YEAR: 2022

INTERNET OF THINGS (IOT)
EC702C

TIME ALLOTTED: 3 HOURS

FULL MARKS: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable

GROUP – A
(Multiple Choice Type Questions)

1. Answer any **ten** from the following, choosing the correct alternative of each question: **10×1=10**

SL. NO.	Question	Marks	CO No.
(i)	Which of the following is false about IoT devices? a) IoT devices use the internet for collecting and sharing data b) IoT devices need microcontrollers c) IoT devices use wireless technology d) IoT devices are completely safe	1	CO3
(ii)	Which of the following is not an actuator in IoT? a) Stepper motor b) A fan c) An LED d) Arduino	1	CO3
(iii)	Which of the following IoT networks has a very short range? a) Short Network, b) LPWAN, c) SigFox d) Short-range Wireless Network	1	CO2
(iv)	When was the actual term “Internet of Things” coined? a) 1998 b) 1999 c) 2000 d) 2002	1	CO1

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(v)	Which of the following is not a property of debugging environment in IoT devices? a) Start and stop the program execution b) Observe data at stop points c) Non-intrusive in terms of performance d) Should not act like a real system	1	CO1
(vi)	Which of the following is not an application of IoT? a) BMP280 b) Smart home c) Smart city d) Self-driven cars	1	CO4
(vii)	What is the full form of IIOT? a) Index Internet of Things b) Incorporate Internet of Things c) Industrial Internet of Things d) Intense Internet of Things	1	CO4
(viii)	Which of the following is the way in which an IoT device is associated with data? a) Internet, b) Cloud, c) Automata, d) Network	1	CO2, CO3
(ix)	Which of the following is not an IoT device? a) Table b) Laptop c) Arduino d) Tablet	1	CO1
(x)	Which of the following command is used to trigger the Amazon echo IOT device? a) Hello b) Suri c) Alexa d) Hey	1	CO4

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(xi)	Which of the following is false about the MANET IoT network? a) It is a self-configuring network b) It has a low data rate c) It doesn't have any encryption d) Power is readily available for complex security	1	CO4
(xii)	How many numbers of the element in the open IoT architecture? a) Four elements , b) Five elements, c) Six elements, d) Seven elements	1	CO4

GROUP – B
(Short Answer Type Questions)
(Answer any three of the following) 3 x 5 = 15

SL. NO.		Marks	CO No.
2.	Explain how RaspberryPi is different from a desktop computer.	5	CO4
3.	Illustrate how Python helps in IoT.	5	CO3,CO4
4.	Describe the roles of YANG and transAPI modules in device management.	5	CO3
5.	(i) Which communication protocols are used in M2M local area networks?	2	CO3,CO4
	(ii) What are the differences between machines in M2M and things in IoT ?	3	CO3
6.	Differentiate the Web of Things and the Internet of Things.	5	CO4

GROUP – C
(Long Answer Type Questions)
(Answer any *three* of the following) 3 x 15 = 45

SL. NO.		Marks	CO No.
7.	(i) Explain the requirements of IoT Protocol Standardization.	7	CO3,CO4

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	(ii)	Explain with example MQTT Protocol. What is role of MQTT protocol in IoT ?	5 +3	CO3,CO4
8.	(i)	What is Internet of Things (IoT)?	3	CO1
	(ii)	What are components required to design IoT ?	5	CO1,CO2
	(iii)	Describe which device we called IoT device, explain with example.	7	CO2
9.	(i)	Determine and demonstrate the IoT levels for designing health Care monitoring system.	10	CO3
	(ii)	What are uses of SPI and I2C interfaces on Resberry Pi ?	5	CO1,CO2
10.	(i)	Explain on Devices Security and Privacy of IoT cloud.	6	CO3,CO4
	(ii)	Why we need of IoT Security.	5	CO3,CO4
	(iii)	Explain issues in IoT security.	4	CO2, CO3
11.		Write short notes(any three):	3x5	CO1,CO2, CO3,CO4
	i)	Wearable,		
	ii)	Smart Cities,		
	iii)	Smart Home,		
	iv)	Smart Grid,		
	v)	GPIO pins and their uses		