

Hall Ticket Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Code No. : 16448 (A) N

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

B.E. (E.C.E.) VI-Semester Main Examinations, May/June-2023

IoT Architectures and Protocols (PE-I)

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO	PSO
1.	List any four features of IoT.	2	1	1	1	2,3
2.	Differentiate between M2M and IoT?	2	2	1	1	2,3
3.	Summarize the real world connectivity constraints in the implementation of IoT?	2	1	2	1	2,3
4.	Define IoT process management functional view point?	2	1	2	1	1,2,3
5.	How Zigbee does makes it unique for enabling communication with IoT devices?	2	1	3	1	2,3
6.	Write any two security standards in MQTT?	2	2	3	1	2,3
7.	Define IIoT and list any two characteristics of Industry 4.0?	2	1	4	1,7	1,2,3
8.	“Rural empowerment helps GDP growth of a country” Justify the role of IoT in support of the statement?	2	2	4	1	2,3
9.	“Network security is essential for social engineering” Justify the role of IoT in ensuring the security?	2	2	5	1,6	2,3
10.	What are the threats to access control among IoT devices?	2	1	5	1,6	2,3
Part-B (5 × 8 = 40 Marks)						
11. a)	Explain in details about IoT Levels & Deployment Templates with neat Diagrams?	4	1	1	1	2,3
b)	Illustrate the role of Business process in an Enterprise? Discuss business process Types.	4	2	1	1	2,3
12. a)	Explain Data visualization and its importance in IoT?	4	3	2	1,2,7	1,2,3
b)	Write a short note on IoT edge system architecture?	4	3	2	1,6	2,3
13. a)	Discuss the role of UDP Protocol in IoT system architecture and how does it enable communication among IoT devices?	4	3	3	1,2	2,3
b)	Explain the working of CoAP protocol and write its role in enabling IoT Communication?	4	2	3	1,2	2,3

Contd... 2

14. a)	How can IoT technology be leveraged to improve Precision agriculture in India?	4	3	4	1,4,6	2,3
b)	Explain about the aspects for providing physical layer security?	4	4	4	1,4,6	2,3
15. a)	Interpret the role of IoT in providing solutions for insufficient Authentication for enabling security for smart devices?	4	3	5	1,6,12	2,3
b)	Explain in detail about Security Architecture in IoT?	4	3	5	1,6	2,3
16. a)	Explain the generic and logic design of IoT with a suitable diagram?	4	3	1	1	2,3
b)	Write a short on technical design constraints for IoT based System design?	4	4	2	1,6,7	1,2,3
17.	Answer any <i>two</i> of the following:					
a)	Explain the working of 6LOWPAN Network Architecture with a neat diagram?	4	2	3	1	2,3
b)	How does the IoT technology can be leveraged for health services in Indian Scenario?	4	4	4	1,6,12	2,3
c)	Write a short note on Security Concerns in IoT Applications	4	2	5	1,6,12	2,3

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	30%
iii)	Blooms Taxonomy Level – 3 & 4	50%
